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A DICTIONARY OF MEDICAL TREATMENT

A GUIDE TO THERAPEUTICS FOR STUDENTS
AND PRACTITIONERS

WITH AN APPENDIX ON DIET

BY

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"THE NURSING OF SICK CHILDREN," ETC.

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PREFACE

THIS little book has been out of print for some time. Unfortunately it has been impossible to re-issue it before now. The opportunity has been taken to thoroughly revise the book, and it is hoped that it will continue to serve the useful purpose of a handy guide to therapeutics for the medical student and practitioner.

JAMES BURNET.

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A DICTIONARY OF MEDICAL TREATMENT

ACNE VULGARIS.—The *general* treatment of this condition is of first importance. Thus digestive disturbances as well as constipation must be remedied. Saline purgatives are often very helpful, such as magnesium sulphate or one of the mineral waters, such as Apenta. The diet should also be carefully attended to. It is advisable to partake sparingly of red meat, tea, pickles and spices, as well as alcohol, and to live mainly on fish, chicken, milk, farinaceous foods, vegetables, and fresh fruit. In women menstrual irregularities should be corrected. Patients who are run down in health are usually benefited by a course of iron and cod-liver oil.

When the patient's alimentary tract has been attended to, and any predisposing cause, such as dysmenorrhœa, removed, then *local* treatment may be commenced. Routine treatment by stimulating ointments and lotions should never be employed without first ascertaining carefully the character of the disease. If there is much irritation, or if many pustules are present, then a sedative application must first be used, such as :—

R Calaminæ Præparat.

Zinci Oxidi ana ʒij.

Glycerini ʒss.

Aq. Rosæ ad ʒiv.

M. ut Ft. Lotio.

Sig. To be applied night and morning.

Another useful combination is an ointment consisting of equal parts of ung. zinci oxidi and ung. aq. rosæ. If, however, there are very few pustules and a large number of comedones, then the following course of treatment usually brings about an improvement in the condition. The affected parts are steamed over a basin of boiling water. Then they are lathered with sulphur and coal tar soap. They are next vigorously rubbed over with a rough bath towel. Finally a stimulating lotion or ointment is applied, *e.g.*,

R	Sulph. Præcip.	.	.	.	.	℥iss.
	Spt. Camphor.	.	.	.	.	℥xx.
	Glycerini	.	.	.	.	℥ss.
	Aq. Rosæ ad	.	.	.	.	℥iv.
M. ut Ft. Lotio.						

Sig. To be applied at bed-time.

R	Sulph. Sublimat.	.	.	.	.	grs. xx.
	Pot. Carb.	.	.	.	.	grs. xv.
	Acid. Carbol.	.	.	.	.	℥x.
	Paraffin Mollis	.	.	.	.	℥j.
M. ut Ft. Ung.						

Sig. To be applied at bed-time.

After three or four days this treatment should be intermitted and cold cream or zinc ointment merely used. The comedones can usually be pressed out by means of a watch-key or a special instrument. The larger pustules should be opened, and after the contents have been evacuated the cavities should be swabbed out with a little 1 in 2000 perchloride of mercury lotion.

The Röntgen rays have proved curative in the severer types of acne when the patient has had exposures of half an hour's duration. Ten or more exposures may be necessary. Recently the vaccine treatment of this disease has been much in vogue. It is better to use an autogenous vaccine. A stock vaccine, however, consisting of *staphylococcus albus* and *B. acne* has yielded good results in some cases, and

deserves a trial, especially where other remedies have failed to relieve the condition.

ACNE ROSACEA.—As a rule this disease is associated with some digestive or menstrual disorder, while constipation is practically always present. Treatment must, therefore, be directed, in the first instance, to the alimentary tract and to any menstrual disturbance. A course of saline purgatives, combined with bismuth, soda, and rhubarb powders before meals, is beneficial. Hot liquids, alcohol, spices, pickles, and red meat should be forbidden. The general circulation should be stimulated by a daily tepid bath or sponge followed by friction with a coarse bath towel.

One of the best local applications is ichthyol in the form of a lotion :—

R.	Ichthyol	.	.	.	.	3ij.
	Acid. Carbolic	.	.	.	.	grs. ij.
	Amyli	.	.	.	.	3ij.
	Aq. dest. ad	.	.	.	.	3j.
M. ut Ft. Lotio.						

Sig. To be applied night and morning.

Ichthyol may also be given internally with advantage in 5-grain doses, best in capsule form three times a day. If there is much capillary dilatation present electrolysis may be resorted to. Scarification, acupuncture, carbon dioxide snow, and the X-rays have also been recommended. Hypodermic injections of 30 minims of 95 per cent. alcohol have also been employed, but these are extremely painful and should be reserved for intractable cases. High frequency currents are stated to have yielded very encouraging results in some cases. If there is any suspicion that the patient is gouty, colchicum in the form of the vinum should be administered in 5-minim doses after meals.

ACROMEGALY.—The treatment of this disease is not very hopeful. Thyroideum siccum is the only remedy which has proved valuable. It is said that it

may even arrest the disease if seen in the early stages, but this is very doubtful. Arsenic has been vaunted as a remedy, as has also phenazonum. They are, however, of very uncertain value, as is also extract of the pituitary body. Of course general tonic treatment is always indicated, but permanent improvement is seldom attained by any known therapeutic measures. Operative measures are still in the tentative stage.

ADDISON'S DISEASE.—Here we have to deal with the secondary manifestations which are set up by this disease as well as with the condition itself. Thus gastro-intestinal disturbances are common. These are to be combated by giving a very simple and nutritious diet as well as by attention to the bowels. Bismuth and dilute hydrocyanic acid may be given, and if diarrhœa supervenes, small doses of liq. morph. hydrochlor. may be added. The secondary anæmia is best treated by a pill such as the following :—

R	Ferr. Sulph. Exsicc.	.	.	.	grs. ij.
	Extr. Nuc. Vom. Sicc.	.	.	.	gr. $\frac{1}{2}$.
	Acid. Arseniosi	.	.	.	gr. $\frac{1}{80}$.
	M. ut Ft. Pil.				

Sig. One to be taken thrice daily after meals.

All forms of over-exertion must be avoided. Fresh air and sunlight are essential, and the patient should be kept in the open air as much as possible. Cod-liver oil is often prescribed with advantage, so long as it does not aggravate the tendency to vomiting and diarrhœa. Should the patient suffer from syncopal attacks he must rest a great deal and avoid all active exercise. A tablespoonful of brandy or a half-teaspoonful of spt. ammon. arom. may be given occasionally if necessary in such cases, while digitalis is often necessary.

The actual treatment of the disease resolves itself into the administration of suprarenal extract in doses of 1 to 2 grains thrice daily. So far no great benefit

has resulted from the use of this remedy. Some authorities prefer to use an extract of the thymus' gland, while others speak highly of arsenic as being a specific in this disease. To be of service arsenic must be given in doses of at least 10 minims of the liq. arsenicalis three times a day. It should be given after meals and be well diluted, and its administration must be stopped at once if any gastro-intestinal irritation is observed.

ADENOIDS.—It is not usually conceded that adenoids are amenable to medical treatment. Before operation is resorted to, however, it is well to try the effect of administering the tincture of iodine in increasing doses, beginning with one minim and going up to ten. A pigment consisting of equal parts of liq. ferri perchlor. and glycerine may also be used. It should be painted on every other night. At the same time the patient should be encouraged to breathe through the nose, and care must be taken that he does not lie on his back at night. For the associated naso-pharyngeal catarrh a nasal douche of sodium chloride and boric acid (10 grs. of each to an ounce of water) is often very beneficial. Respiratory exercises are always to be recommended in the case of older children. These are even more essential after operation than before it. If operation is decided on, the after-treatment by attention to nasal breathing and suitable exercises must be carefully carried out.

ALBUMINURIA.—Apart from renal and cardiac disease albuminuria may be functional. Thus the transient appearance of albumin in the urine is sometimes met with after cold baths, excessive mental or bodily exertion, and occasionally as the result of excesses in the way of food or alcohol. In all such cases treatment is mainly prophylactic. Small doses of arsenic may be beneficial in cases associated with digestive disturbance. In the so-called orthostatic albuminuria, which occurs in children between the seventh and fourteenth years, treatment has not

yielded very good results. All one can do in such cases is to tone up the system by means of fresh air, a well-regulated diet, and general tonics. School work should be reduced to a minimum, and late hours must be avoided. Strontium lactate in 10-grain doses may be tried. In some cases potassium acetate in 5- to 10-grain doses has proved beneficial. This renders the urine alkaline, but it should always be persevered in for some time, otherwise the result will be disappointing. (See also NEPHRITIS.)

ALCOHOLISM.—The treatment of alcoholism is rarely hopeful. In mild cases associated with anorexia rest in bed should be enjoined. All alcohol must be prohibited. The food must be liquid, such as warm milk, soups, beef-tea, meat-juice, and gruels. If sickness is a prominent feature a mustard poultice may be applied over the epigastrium, and a mixture of bismuth and hydrocyanic acid administered. If diarrhoea is troublesome a tablespoonful of castor oil with 10 or 15 minims of tinct. opii may be given. For sleeplessness the safest and best drug is sodium bromide in 30-grain doses, repeated if need be every four hours. Small doses have no effect in such cases. If the pulse is feeble black coffee should be tried, or caffein may be given hypodermically.

In more acute cases, or those in which the actual symptoms of delirium tremens are present, the patient must have 60 grains of sodium bromide combined with 10 grains of caffeine citrate. He should be kept in a darkened room and fed on warm milk and soups. If heart failure threaten, hypodermic injections of strychnine and strophanthin are reliable. Alcohol, of course, should be withheld. These cases sometimes do well when treated with tinct. digitalis alone. This drug is said to have a sedative effect in such patients when given in large doses, and at the same time it steadies the pulse and strengthens the heart and circulation. In cases of delirium tremens it may be necessary to

restrain the patient's movements. This is best accomplished by placing a sheet round his body over the nightshirt and bringing the ends together beneath the bed. It is always advisable to examine the bases of the lungs from time to time lest pneumonia supervene and escape detection. After recovery tonics, consisting of nux vomica and capsicum, should be prescribed. For sleeplessness and nervousness a warm bath at bedtime and a cold douche in the morning are to be recommended.

Chronic alcoholism, with its attendant degenerative organic changes, is a very intractable condition. The first essential is to cut off all alcohol, and to secure a healthier condition of the gastro-intestinal tract by the occasional administration of a mixture consisting of sod. bicarb., tinct. rhei, tinct. nucis vomicæ with gentian, and a dose of calomel at bedtime followed by a saline aperient in the morning. Diet should consist largely of eggs, fish, chicken, mutton, tripe, sweetbread and soups, together with abundance of milk. Soda water is the safest form of beverage in such cases. The patient should be as much in the open air as possible, but he should find some pastime, as walking soon becomes monotonous. Special drug treatment in the form of strychnine and atropine has been recommended. We begin with a dose of $\frac{1}{60}$ grain of nitrate of strychnine and $\frac{1}{480}$ grain of sulphate of atropine hypodermically, and gradually increase to $\frac{1}{20}$ grain of strychnine and $\frac{1}{60}$ grain of atropine thrice daily. These amounts are then gradually reduced. This treatment may be combined with the administration of a mixture consisting of nux vomica, capsicum, chloride of gold, and gentian. Such treatment is best carried out under special supervision in a sanatorium. Care must be exercised in the selection of "homes" for these cases, as there is reason to believe that in some institutions alcohol is not forbidden, and the treatment is altogether perfunctory. A sea voyage sometimes forms

a useful adjunct to treatment, but only when the patient is accompanied by a reliable attendant or friend.

ALOPECIA.—Simple baldness may result from conditions of debility. It is also common after certain infectious diseases such as erysipelas. It is often associated with a general seborrhœic condition of the scalp. Treatment consists in avoiding heavy head-gear. Women should avoid doing the hair up in a tight fashion and the constant wearing of transformations. Too frequent washing of the head with soap is not good. If the health is run down tonics are indicated. The scalp should be washed occasionally with alkaline soap spirit and thoroughly dried. This will get rid of the scaliness. A stimulant hair lotion should be well rubbed in at bedtime. This may consist of tinct. canthardis, liq. ammon. fort., ol. amygdalæ, and spirit. rosmarini. If the ammonia makes the hair dry and brittle it may be omitted from the prescription.

The form of baldness known as alopecia areata calls for special treatment. This condition often proves very intractable. Internally tonics, especially arsenic and cod-liver oil, should be administered. Thyroid treatment also proves beneficial in certain cases. On the whole, however, local measures generally give the best results. The Röntgen rays and high frequency currents are spoken of favourably, while treatment by the Finsen light has also been tried with some success. The treatment recommended by Lassar seems, however, to give the best results. The scalp is washed with tar soap every day for several weeks and then dried. A 2 per cent. solution of perchloride of mercury in eau de Cologne is next applied. Then the scalp is dried by rubbing over it a 0.5 per cent. solution of naphthol in rectified spirit. Finally a lotion consisting of 10 grains to the ounce of salicylic acid in oil is applied. Massage of the scalp with oil or vaseline appears to be of service; while occasional applications of liquor epispasticus to the bald patches have also been recommended. A 10

per cent. solution of lactic acid may also be tried. Injections of pilocarpine are not advisable.

AMENORRHŒA.—It should be borne in mind that cessation of the menses occurring suddenly in a young and healthy woman usually indicates pregnancy; otherwise anæmia, primary or secondary, is probably the cause. Treatment in the majority of cases, therefore, consists in the administration of iron and attention to the general health, as in the condition of anæmia. The menstrual period may be delayed as the result of a chill about the time of the flow. Here a hot mustard foot bath, or even a sitz bath should be ordered, and hot drinks while the patient is kept warm in bed.

ANÆMIA, PERNICIOUS.—The mouth, teeth, and the gastro-intestinal tract must first receive attention. The mouth should be thoroughly washed out several times daily with a lotion consisting of sod. bicarb., thymol, and tinct. myrrhæ. Powders of hydrarg. subchlor. and salol should be administered two or three times a day. The food must be extremely light and nourishing. Soups, pounded mutton or chicken, fish, farinaceous puddings, milk, vegetables and fruit in moderation, with a daily allowance of alcohol, are indicated. When nausea and vomiting are troublesome gastric lavage may be tried, while at the same time a bismuth and hydrocyanic acid mixture is administered. The patient should be kept in bed, and careful attention paid to the pulse and temperature.

The drug which offers the best results is arsenic in the form of the liquor arsenicalis in gradually increasing doses, commencing with 2 or 3 minims, and going up to 15 minims thrice daily. This should be given well diluted after meals. Kharsivàn, neokharsivàn, and galyl have also been employed. Red bone marrow is rarely of much value, but it may be tried. In severe cases oxygen inhalations are recommended, and transfusion of blood may be practised. Other suggested remedies are perchloride of mercury, and a combination

of the citrate, tartrate, and carbonate of potassium. Many patients seem to derive benefit from open-air treatment. The use of anti-streptococcic serum has been highly spoken of. It should be given in small doses (5 to 10 c.c.), and the risk of febrile symptoms and other untoward effects must be kept in mind.

ANÆMIA, SECONDARY.—The treatment of this condition resolves itself into removal of the cause where that is possible, and in the administration of iron, or of iron and arsenic in some cases, always combined with fresh air and suitable food. It is well, therefore, to bear in mind some of the causes of secondary anæmia. These are repeated hæmorrhages (*e.g.* uterine fibroids, hæmorrhoids), tuberculosis, unhealthy occupations, malignant disease, rheumatism, nephritis, and sometimes chronic constipation. In secondary anæmia the gastro-intestinal tract possesses an imperfect blood-supply. Indigestion is, therefore, commonly present, while constipation is the rule. Hence a course of sod. bicarb. and extr. cascar. liq. is to be advised before tonic treatment is commenced. In many cases the following mixture is found to be very satisfactory :—

R	Ferr. Sulphatis	grs. 36.
	Magnes. Sulphatis	ʒiiss.
	Acid. Sulph. Aromat. . . .	ʒij.
	Infus. Calumbæ ad	ʒvj.
	S. et M. ut Ft. Mist.	

Sig. A tablespoonful to be taken thrice daily in water after meals.

A very useful combination is a pill of ferri sulph. exsicc. grs. iij, with acid. arsenios. gr. $\frac{1}{80}$. A mixture consisting of the tincture of the perchloride of iron and liquor arsenici hydrochlor. very often aggravates the constipation and deranges the digestion; it is consequently not recommended. Raw meat-juice is often beneficial. If the patient dislikes it he may have scraped beef or mutton very lightly cooked instead.

Other valuable articles of diet are milk, eggs, potatoes, oat-flour, and spinach, which, according to Bunge, contains a large percentage of ferruginous salts.

It may be well to point out that secondary anæmia occurring in childhood is often due to improper feeding and gastric disturbances. In such cases iron, or iron and arsenic, only do harm. Treatment consists in ordering a suitable diet, administering a simple tonic such as soda, rhubarb, and gentian, and then putting the child on malt and cod-liver oil for a time.

ANEURISM, THORACIC.—The great principle in the treatment of this serious affection is rest in bed in the recumbent position. With regard to diet we are strongly of opinion that a good deal of liberty may be allowed, provided no red meat or any indigestible material is given. It is essential that fluids be restricted. The drug which is most beneficial is potassium iodide, given in 10-grain doses thrice daily. This remedy probably acts by influencing the productive cause at work in most cases, viz., syphilis. It certainly does not lower the blood pressure directly. Some authorities advocate larger doses of the iodide, but these large amounts are in all probability of no greater value than the smaller ones recommended. Where the blood pressure is high this may be lowered by the nitrites.

For the pain nothing equals a hypodermic injection of morphia, but if this symptom is slight, the application of a mustard plaster may suffice. For insomnia, chloralamide may be given in 15-grain doses. Constipation is best treated by massage of the abdomen, combined with saline aperients. If the aneurism threatens to rupture, venesection may be resorted to, and a hypodermic injection of morphia given. Gelatine injections have been recommended. A 1 per cent. solution, carefully sterilised, is injected subcutaneously once a week into the abdomen. This method of treatment may be given a fair trial in suitable cases, 250 c.c. being injected on each occasion.

ANGEIO-NEUROTIC ŒDEMA.—This condition is now regarded as a special variety of urticaria. We have seen several cases at all ages. It is common in neurotic subjects at various periods of life. It sometimes occurs at the menopause, and is occasionally met with in childhood. As a rule, no active treatment is necessary, but calcium chloride may be tried, or a mixture of potassium bromide and ergot. Painting the affected parts with a solution of ichthyol (3ij to 3j) appears beneficial in many cases. Recurrence is frequent. At times life may be threatened should the œdema attack the larynx. In such cases tracheotomy may actually be called for. In all cases a brisk saline purge at the outset is advisable, while in those occurring at the menopause the best combination is undoubtedly bromide of potassium and ergot.

ANGINA PECTORIS.—During the attack the first thing to do is to give the patient an inhalation of amyl nitrite. A glass capsule containing 3 or 5 minims is broken in a handkerchief and the vapour inhaled. The clothing should be loosened and mustard applied over the præcordial region. Should the pain continue an ounce of brandy ought to be administered, and the patient may have a hypodermic injection of $\frac{1}{4}$ grain of morphia, care being taken to combine this, however, with $\frac{1}{100}$ grain of atropine. Chloroform inhalations are rarely necessary, but may be resorted to if every other measure fails.

To ward off the paroxysms, which are extremely apt to recur, the patient should lead a life as free from hurry and worry as is possible. His diet should be light and easily digested, and ought to consist largely of eggs, milk, fresh vegetables, and fruits, with fish, chicken, and a small amount of butcher meat. Constipation should be guarded against. If dyspepsia is complained of, a mixture of sod. bicarb., tr. nucis vomicæ, and infus. calumbæ may be taken before meals. Three special classes of drugs are of value as prophylactics.

These are : arsenical preparations, the iodides, and the nitrites. In giving any of these care must be taken to intermit their administration occasionally, otherwise dyspepsia may be set up and an attack of angina actually precipitated. Sodium iodide is to be preferred to the potassium salt, as being less likely to upset the digestion. The best nitrite preparation is the liquor trinitrini, which may be given in doses of $\frac{1}{2}$ to 2 minims. It is really a nitrate. Alcohol in great moderation is allowable, and so is tobacco, but excessive smoking, like excessive drinking, is dangerous. Daily exercise must be taken in the shape of walking on the level. Tepid sponging followed by friction is permissible, but cold baths are risky.

In pseudo-angina relief is usually obtained by a course of bromides and the regular use of purgatives. The condition usually occurs in women who are excessive tea-drinkers and who are habitually constipated and constitutionally neurotic. The treatment of such cases must therefore be directed accordingly.

ANTHRAX.—The treatment of the external pustule may be by excision, the actual cautery, and the external and internal use of ipecacuanha powder. If excision is adopted this must be very free, and the surrounding tissues should be subsequently injected with formalin or a 5 per cent. solution of carbolic acid. Anti-anthrax serum should always be given a trial. 100 c.c. of this may be injected under the skin at different points, and the dose repeated if necessary. Intravenous injection of serum has also been recommended.

AORTIC DISEASE.—(See HEART, DISEASES OF.)

APOPLEXY.—The patient should be put to bed at once in a darkened room. A minim of ol. crotonis with 5 ℥ of ol. olivæ must be placed on the back of the tongue, and the urine drawn off by means of a catheter if the bladder is distended. The head should be kept cool and slightly raised. The utmost quiet must be enjoined. When the patient is able to swallow, only

diluted milk should be given for a time. A mixture consisting of sodium iodide (grs. x) and sodium bromide (grs. x) may be given three or four times a day. The bowels must be kept carefully regulated by pil. hydrarg., or hydrarg. subchlor., followed by mild salines. Later on massage and electricity will be of service, combined with passive movements of the affected limbs.

After recovery has taken place attention should be directed to the actual cause of the attack, be it cardiac, renal, or vascular in origin, and the appropriate treatment ordered. In all cases freedom from mental and physical strain is important, and careful dieting with the avoidance especially of red meat and alcohol is essential. Exercise must also be very carefully regulated.

APPENDICITIS.—The treatment of this affection has now resolved itself into "early operation in every case." This finding has been arrived at by surgeons who have estimated the severity of the disease from their observation of hospital cases, which as a rule are always of the severe type. In private one frequently meets with cases which are quite amenable to medical treatment. By rest in bed, the use of oil enemata, and avoidance of all food save milk and soda water, with the constant application of turpentine fomentations locally, many cases get perfectly well. Provided the pulse is satisfactory and the patient's general condition good, operation may be staved off. There are cases also in which the use of salicylates brings about relief, as undoubtedly appendicitis is sometimes rheumatic in origin.

In ordinary cases, if operation is decided on, it should be performed as early as possible if the patient's condition is unsatisfactory. It must be remembered that even the pulse rate is at times no guide to the condition of the appendix. The patient's temperature and pulse may appear perfectly satisfactory, and yet when the abdomen is opened the appendix may be found to be gangrenous or at the point of rupturing.

ARTERIO-SCLEROSIS.—This disease is becoming

increasingly common. One of its modern causes is mental worry and strain. These must, accordingly, be avoided as far as possible. It is very common as a senile change, and is also to be met with in those who have contracted syphilis or who have led a laborious life. In its treatment diet is of importance. This should consist of milk, eggs in moderation, farinaceous foods, fish, chicken, vegetables, and fruits. We have personally found that a salt-free diet is beneficial. Liquids should be taken in moderation, and alcohol as well as tobacco forbidden as a rule. Exercise must be taken daily. This may consist in walking or golfing. Some cases are markedly benefited by graduated hill-climbing treatment. Warm baths are advantageous, as they dilate the capillaries and so relieve the high blood pressure, but Turkish baths are somewhat risky. Constipation should be relieved by the use of saline aperients, one of the best being magnes. sulph. Pil. hydrargyri may also be given occasionally, as this often has a beneficial effect in lowering the intra-vascular pressure. The iodides are of very little service save in syphilitic cases. Better results are got by administering 2-grain doses of sodium nitrite thrice daily, or 1 to 2 minims of liquor trinitrini. If the patient shows signs of vertigo or nausea in the mornings, he should be kept in bed for a time on milk diet. Saline purgatives and one of the nitrites should be administered. The urine should also be examined with regard to its specific gravity and the presence or absence of albumin. In many cases, where overwork or worry is the causal factor, a prolonged holiday in the country often brings about a marked improvement in the patient's condition.

ARTHRITIS DEFORMANS. — (See RHEUMATOID ARTHRITIS).

ASCITES. (See also HEART, DISEASES OF.)—The cause should be sought for and treatment applied accordingly. Thus, the condition may be due to cardiac, renal, hepatic, or peritoneal disease. In giving

hydragogue cathartics for the relief of this condition, the danger of straining and of sitting up in bed for the purpose of having the bowels evacuated should be kept in mind. The best drugs are calomel combined with pulv. jalap. co., elaterium in full doses of $\frac{1}{2}$ grain, and magnesium sulphate. As diuretics acetate of potassium (grs. 30), and theobromin. et sod. salicyl. (grs. x), are to be recommended. If all other measures fail the abdomen may be tapped by means of Southey's tubes, the bladder being first emptied, and the abdomen supported by means of a broad bandage. In cases of ascites due to cirrhosis of the liver operative measures have been recently tried with some success, and these should be remembered when everything else fails. When the fluid has been removed the administration of potassium iodide in 10-grain doses is often helpful in preventing a return of the fluid, and in assisting in the removal of any that remains.

ASTHMA.—By this term should always be understood bronchial asthma. During the attack an emetic is often of value, especially if the patient has had a late meal. One of the best emetics is a teaspoonful of vinum ipecacuanhæ. If this fails the patient may inhale a 5-minim capsule of amyl nitrite, or be given a hypodermic injection of suprarenal extract 0.0008 gm., pituitary extract 0.0004 gm. in 1 c.c. of solution. Morphine may also be given subcutaneously. When everything else has been tried in vain chloroform inhalation may be resorted to. As far as possible, however, morphia and chloroform should be avoided, as the patient is very apt to fall into the habit of using these himself, especially in these days when powerful drugs are so readily obtained by the public. Patients who do not smoke sometimes obtain relief by smoking a cigarette. Antispasmodics, such as potassium nitrate, may be tried. Blotting-paper may be soaked in a solution of this salt and then set on fire; or a stramonium cigarette may be smoked. Some speak highly of the value of pyridin,

3j being poured on a plate and the fumes inhaled. A 5 per cent. solution of cocaine may be sprayed on the nasal mucous membrane, and this sometimes affords marked relief, but it is not without some risk.

When the attack is over the cause should be sought for. Cold winds, fogs, heated rooms, late suppers, malaria, gout, and other constitutional conditions, may induce asthmatic seizures. It is also important to remember that many cases are due to naso-pharyngeal affections, such as nasal polypi, granular pharyngitis, and enlarged tonsils. Attention in all cases should be paid to the diet. The evening meal especially should be taken early. It should be small and exceedingly simple in character. A late dinner or supper is always risky. Alcohol may sometimes be necessary, especially in the case of the old and feeble, but its use should be restricted as far as possible.

Between the attacks sodium iodide may be given, and this may be combined with arsenic. In gouty patients a useful combination is sodium iodide with potass. bicarb. and vinum colchici. The vaccine treatment of bronchial asthma gives relief in many cases, and may be given a trial. Often a change of climate is beneficial. Thus a change from town to country, or *vice versa*, may bring about a cure. The one thing to avoid is self-medication. Nearly all asthmatics are in the habit of resorting to some quack remedy, or of applying to one or other of the numerous advertising quacks for a "cure." Patients should be warned against these things, and taught that attention to the mode of life and diet are of infinitely more importance than any medicine.

ATHEROMA.—(See ARTERIO-SCLEROSIS.)

BACILLURIA.—In this condition the bacillus coli is frequently found in the urine in large numbers. The urine rapidly decomposes, giving rise at times to a very foetid odour. The treatment consists in the administration of such purgatives as calomel, and urinary

antiseptics such as acid. boric. (grs. x), salol (grs. x), or hexamine (grs. v to x), three times a day. Vaccine treatment is often of decided advantage.

BEDSORE.—Prophylaxis is of great importance. The skin should be kept clean and dry, bathed with methylated spirit and dusted with a powder consisting of equal parts of boric acid and starch. Air cushions are often necessary, or even an air bed. When bedsores appear they may be treated by means of *lotio rubra*, and the parts covered over with boric lint, kept in place by means of cotton wool and a bandage.

BERI BERI.—The risk of cardiac complications and of œdema must be kept in mind. Otherwise the patient should rest in bed, and have small amounts of nutriment. Tonics are useful in the early stages, e.g. strychnine and iron. Saline aperients as well as diuretics are also valuable, especially a combination of potass. acetat. (grs. 30), and spt. juniper. (℥x). When the acute stage is over massage and electricity may be applied to the affected muscles, but strychnine is now contraindicated. In the paroxysms of dyspnœa, resulting from cardiac paresis or pulmonary œdema, inhalations of 5-minim capsules of amyl nitrite are very valuable, while in some cases a hypodermic injection of strychnine may be called for.

BLEPHARITIS.—In all cases errors of refraction, if present, must be corrected. The general health should be improved by such tonics as iron and cod-liver oil. The crusts may be removed by bathing them with a warm solution of bicarbonate of soda (grs. x to the ounce). Night and morning the edges of the lids should be smeared over with an ointment consisting of hydrarg. oxid. flav. (grs. iv to the ounce). In conditions of blepharo-conjunctivitis this treatment may be combined with douching. The best lotion to use is one consisting of 10 grains of boric acid to the ounce. The lotion should be used warm; and, indeed, in many cases ordinary water does equally well.

BOILS.—If many of these are present, or if they are constantly recurring, the urine should be examined for sugar. At the outset a brisk purge is indicated. Locally, warm moist applications are soothing. The skin should be shaved, and washed thoroughly with soap and water, ether, and lysol in succession, then some warm moist application applied. When the boil is pointing an incision may hasten matters, otherwise surgical interference is rarely called for. If the cavity left is a large one it may be packed with iodoform gauze. While the boil is maturing the skin around may be painted with tinct. iodi or smeared over with ung. hydrarg. ammon. The use of internal remedies rarely succeeds. Those most recommended are arsenic, calcium sulphide (gr. $\frac{1}{3}$) and yeast. In our opinion none of these do much good, yeast certainly being absolutely worthless.

Sometimes a boil which is just beginning to form may be caused to abort by pushing the pointed end of a match dipped in pure phenol into its centre. Painting the part with pure ichthyol has also been followed by good results.

The vaccine treatment of boils may also be tried. It is sometimes better to employ an autogenous vaccine. In certain cases the result of such treatment is to cause a fresh crop of boils to appear. This therapeutic measure can, however, be recommended with absolute confidence as to its ultimate good results.

BRADYCARDIA.—The cause of the condition, which is usually some cardiac lesion, must first be ascertained. Dilatation of the stomach is often operative, and must be avoided. Drugs are not very satisfactory, but in cases due to the toxic influence of alcohol, tobacco, tea or coffee, strychnine is strongly recommended. Otherwise belladonna and the nitrites are the only remedies of value. The latter may be given in combination with iodides when arterio-sclerosis is present. As in all affections of the heart the diet and exercise must be very carefully regulated.

BRIGHT'S DISEASE.—(See NEPHRITIS.)

BRONCHIECTASIS.—In severe cases the patient must be kept in bed, and in a large, airy room. Otherwise he should be as much in the open air as possible. Some oil, such as sanitas or eucalyptus, should be vaporised in the room in order to keep down the fœtor. For the sweating, sponging with toilet vinegar and tepid water is very comforting to the patient, and helps to reduce the temperature when high. Diet is of great importance as there is often a tendency to diarrhœa. Food should be given frequently, but in small quantities. A warm drink in the early morning often facilitates the expectoration.

The best drug to administer is creosote in increasing doses, starting with 3 minims and going up to 10, three times a day after meals. Intratracheal injections, composed as follows, are also beneficial :—

R	Menthol	.	.	.	.	.	10·0
	Guaiacol	.	.	.	.	.	2·0
	Ol. Olivæ	.	.	.	.	.	88·0
	<i>Sig.</i> A drachm to be used for an injection.						

Postural treatment, in our hands, has proved very successful. The patient during the morning paroxysm has the foot of his bed considerably raised. Pillows are placed under his back, and he is then made to lie over on the unaffected side with his head well over the side of the bed. This certainly helps him to empty the cavity. We have also found the internal administration of ichthyol in capsules containing 10 grains of value in some cases (mostly associated with pulmonary fibrosis). Creosote vapour baths are lauded by some authorities. Our experience has been that they are very troublesome, and do not influence the course of the disease more than the internal administration of this remedy does.

In chronic cases climatic treatment is often beneficial, especially during the winter months. Surgical

interference cannot be recommended ; although incision and drainage is the operation suggested by surgeons.

BRONCHITIS, ACUTE.—At the outset, before the secretion is established, the patient should be kept in bed, and a linseed and mustard poultice applied over the sternum. He may also be given some simple diaphoretic mixture every three or four hours, such as, liq. ammon. acet. ℥j, spt. ætheris nitr. ℥xv, aq. cinnamomi ad ℥ss. It is usually also advisable to give a calomel purge. Later on, when the secretion stage is reached, a stimulating expectorant may be administered, containing such remedies as vin. ipecac., ammon. carb., ammon. chlor., squills and senega. (In prescribing squills with alkalis, such as ammon. carb., only the tincture should be used as the syrup is an acid preparation.)

If heart failure threaten, 5-minim doses of tr. strophanthi may be tried, or strophanthin may be given hypodermically. Oxygen inhalations sometimes afford relief in severe cases.

The temperature of the room must be kept constantly equable (60° to 65° F.). The patient should lie between blankets and wear a flannel nightdress. Diet should consist mainly of milk, beaten-up eggs, soups, and other liquid nourishment. In the convalescent stage acid tonics are invaluable, and attention should be paid to clothing and foot-gear. Change of air is often necessary.

As regards the drug treatment of acute bronchitis, especially in feeble or elderly patients, opium preparations must be used with very great care. Such remedies as tr. camph. co., morphine, codeine, heroin, and the like, cannot be given without risk, and their administration is, therefore, better avoided altogether. In gouty cases colchicum should be borne in mind as a useful addition to the treatment.

BRONCHITIS, CHRONIC.—Preventive treatment is of great value here. Change to a warmer climate, atten-

tion to clothing, and general hygienic measures will do much to ward off attacks. Many cases are brought on by careless treatment of the first acute attack. The moral, therefore, is obvious. The drug treatment at our disposal is very varied. In the first place we have certain antiseptics and bronchial stimulants, such as copaiba, cubebæ, creosote, ol. eucalypti, ol. terebinthinæ, and terebenum. Most of these are disagreeable, the last mentioned causing marked eructations. They are all best given in capsule form. Then there are the iodides, best combined with ammon. carb.; and finally, we have squills and senega. Cod-liver oil is often of service in warding off attacks, and improving the patient's nutrition. A valuable prescription for those suffering from chronic bronchitis with associated cardiac dilatation is the following :—

R	Ammon. Carb.	.	.	.	.	grs. 48.
	Tinct. Digitalis	.	.	.	.	ʒj.
	Tinct. Scillæ					
	Spt. Chloroformi	.	.	.	.	āā ʒij.
	Inf. Senegæ ad	.	.	.	.	ʒvj.
					S. et M. ut Ft. Mist.	

Sig. A tablespoonful to be taken in water three times a day (or oftener, if need be).

Where the secretion tends to be very abundant a change to a somewhat dry diet is often helpful in reducing the amount. The bases of the lungs should be examined from time to time in cases of chronic bronchitis, and if œdema is present dry cupping should be immediately resorted to.

CANCERUM ORIS.—(See STOMATITIS.)

CEREBROSPINAL MENINGITIS.—(See MENINGITIS.)

CHICKEN-POX.—(See VARICELLA.)

CHILBLAINS.—These are usually met with in persons who are anæmic and constipated. Open-air exercise should be enjoined and woollen garments worn

next the skin. Tight clothing and especially tight kid gloves and tight boots are to be avoided. Cod-liver oil and iron may be ordered, as well as some simple aperient such as pulv. glycyrrhiz. co. Calcium chloride and lactate are regarded as specifics. They may be given in 10-grain doses three times a day for a week, but their effect is often slight, if any.

Locally, painting with tinct. iodi may be tried provided the skin is unbroken ; or a liniment composed of equal parts of the liniments of opium and belladonna sometimes proves curative. When the skin is broken boracic poultices should be applied for a day or two, and then ung. calaminæ may be ordered. It should be borne in mind that electric baths for ten minutes daily frequently succeed when simpler measures fail.

CHLOROSIS.—In the treatment of this disease we have to keep in mind three principles:—(1) Enjoin rest ; (2) counteract the constipation which always exists in spite of the patient's statements to the contrary ; (3) prescribe iron in the form of one of the ferrous salts.

In cases of chlorosis, associated as these are with more or less breathlessness, it is absurd to order the patient to take long walks. She should be made to sit out of doors as much as possible ; and indeed, if pain after food is a marked feature, it is safer to keep her in bed for a week or two lest gastric ulcer supervene. Great attention should in all cases be paid to the diet as the digestive apparatus is practically never working well. Tea should be limited, and milk or meat-juice substituted. Porridge with milk forms an excellent breakfast dish for these patients, as oatmeal is rich in iron. Eggs are also invaluable. These may be softly boiled, poached, scrambled, or made into omelettes. For lunch, soups made with lentils or beans may be ordered, followed by chicken, mutton or beef, and some form of milk pudding or stewed fruit such as apples or prunes.

Constipation is often troublesome. The method of ordering cascara for its relief in teaspoonful doses at bedtime is rarely satisfactory, still less are tablets of this drug, which may be voided before they have had time to dissolve. If drugs are necessary extr. cascarae liq. may be given in 10- to 15-minim doses thrice daily after meals, or a teaspoonful of pulv. glycyrrhiz. co. may be ordered at bedtime. In many cases, however, it is better to prescribe one of the mineral waters just before breakfast. As a rule, before beginning the specific treatment by means of iron it is well to give an alkaline tonic such as :—

R	Sod. Bicarb.	.	.	.	.	grs. 90.
	Tinct. Nuc. Vom.	.	.	.	.	℥j.
	Tinct. Rhei Co.	.	.	.	.	℥j.
	Glycerini	.	.	.	.	℥ss.
	Inf. Gent. Co. ad	.	.	.	.	℥vj.
	S. et M. ut Ft. Mist.					
	Sig. A tablespoonful in water thrice daily before meals.					

The hæmoglobin should also be estimated if possible, so as to judge of the patient's progress or otherwise under treatment.

The perchloride of iron should never be given. It is too astringent. The best form of iron is the exsiccated sulphate, which may be ordered in pill form (grs. iij t.d.s.). Other useful forms are ferrum redactum (grs. v) and ferri carbonas saccharatus (grs. x to xv). Whatever preparation is used it should be given in full doses, and continued over a long period, otherwise no permanent good will result. Arsenic is practically useless in cases of chlorosis, as it has no effect on the hæmoglobin, which is the deficient element of the blood here.

CHOLERA.—Prophylaxis is essential when cases are present in a district. Measures should be adopted for preventing the entrance of flies into houses, as these probably carry the infection. Great care should be

taken as to diet, and all drinking water must be boiled. When the disease actually presents itself the first prescription to give is one consisting of *ol. ricini* ℥j and *tr. opii* ℥30. The patient should be put to bed, and the body kept very warm by means of blankets and hot water bottles. Iced champagne or brandy is excellent for the thirst. Morphia is a remedy of considerable value in this disease. It may be given combined with 20-minim doses of *acid. sulphuric. aromat.*, or may be injected hypodermically. Permanganate of potassium in 2-grain doses is also greatly recommended. During the stage of collapse strychnine and strophanthin may be given hypodermically. Throughout the whole course of the disease only liquids may be given by way of food, and even during convalescence only very light diet should be permitted. To prevent the spread of infection special precautions must be taken in the way of isolation of the patient as well as disinfection of clothing, fæces, and urine.

CHOREA.—Most cases are due to rheumatism. This being so, the treatment resolves itself into (1) absolute rest in bed ; (2) light diet ; (3) attention to the gastrointestinal tract ; (4) massage ; (5) administration of antirheumatic remedies.

The patient must always be put to bed, and kept there absolutely for a month or six weeks, depending on the severity of the attack. Cases do not recover when allowed to run about. The diet should consist largely of milk. The patient should be compelled to drink large quantities of it. Too many milk puddings are apt to cause indigestion and flatulence. Red meat is harmful, but later on chicken or fish may be allowed. Personally we have had excellent results from a diet which consisted largely of milk, oatmeal porridge (once a day), and fresh fruit. As a purgative calomel is best. Massage, which is always highly beneficial, may be commenced early, although if the movements are extreme it may be advisable to delay for a time.

In cases of rheumatic origin there seems no good reason for giving arsenic. The latter probably cures by producing a mild form of neuritis. Moreover, it does not prevent a recurrence. Salicylate of soda and acid. acetyl-salicyl., are the drugs to prescribe. It is useless to give anything less than 10-grain doses three times a day of either drug. It is stated that salicylate of soda should always in these cases be combined with the bicarbonate so as to prevent acidosis. The acid. acetyl-salicyl. should be given alone; and it is, moreover, more palatable than any other salicylic acid compound.

In cases other than rheumatic, removal of the cause, such as tape-worm, will bring about a cure. Arsenic is not the drug to be preferred even here. Better are sod. brom. (grs. x), and phenazonum (grs. v). The former may be combined with 5-grain doses of chloral hydras; the latter, however, should be given alone.

In the *chorea of pregnancy* treatment must be directed in the first place to obtaining sleep. Large doses of bromides are often necessary. A combination of ammon. brom. with sod. brom. and chloral hydras sometimes acts well. Feeding is often a difficulty. Large quantities of liquid nourishment should be given. Such cases are best treated in hospital unless a good nurse can be obtained at home. The induction of premature labour is not to be recommended as a rule. Bed-sores must be guarded against, and if the head movements are severe cotton-wool and bandages must be applied to prevent injury.

CIRRHOsis OF LIVER.—In the early stage of this disease attention to the gastro-intestinal tract is most essential. All food must be very light and very plain in character. A milk diet usually suits well. Alcohol should be absolutely forbidden. If vomiting is complained of, milk and Vichy water should be given together with small doses of bismuth and hydrocyanic acid. If diarrhoea is a marked feature 15-minim doses of tinct. catechu with ʒss doses of mist. cretæ may be

tried. Morning vomiting may be treated by giving fairly large doses of sod. bicarb. (grs. xx) combined with bismuth carb. (grs. x). If there is hæmatemesis the patient must be kept at rest in bed, the bowels thoroughly emptied by an enema, and nothing but sips of iced water given by the mouth for at least twelve hours. Thirty minims of solution of adrenalin chloride (1 in 1,000) may be given by mouth every hour for three doses. Sometimes a hypodermic injection of morphia (gr. $\frac{1}{4}$) is necessary.

In the later stages, when ascites is present, the patient should be in bed and hydragogue cathartics tried, such as pulv. jalap co., or magnes. sulph. Care must be taken, however, not to set up intractable diarrhœa. If these fail, diuretics, such as pot. acetat., may be resorted to. Sometimes a combination of ammon. chlor. (grs. x) with sod. iod. (grs. x) proves effective. When medicinal remedies fail the fluid must be drained off by means of Southey's tubes (see ASCITES). Operative measures have also been recommended, and these may be kept in mind, although at present the mortality after operation is high.

COLIC, BILIARY.—A hypodermic injection of morphia (gr. $\frac{1}{4}$) is the speediest remedy. Hot baths, hot turpentine fomentations, and chloroform inhalations are also valuable. (See also GALL STONES.)

COLIC, LEAD.—In addition to a hypodermic injection of morphia and hot turpentine fomentations to the abdomen, a full dose of magnesium sulphate should be administered at once. (See also PLUMBISM.)

COLIC, RENAL.—The treatment here is practically the same as for biliary colic. Contrexeville water should be given freely, and red meat together with alcohol prohibited.

COLIC, SIMPLE INTESTINAL.—The administration of ol. ricini ($\frac{3}{4}$ ss to j), together with tr. chloroform. et morphinæ co. (℥ v to x) usually relieves this condition. Afterwards attention to diet and the avoidance

of constipation will prevent a recurrence. In the case of infants and children the feeding is the first matter requiring attention. For the immediate relief of this symptom nothing succeeds like a hot linseed poultice applied over the abdomen, together with the administration of an olive oil enema. The treatment of colic in infants by means of drugs is to be condemned, as it is merely a symptom usually due to some dietetic error; it may be over-feeding, the use of artificial or other unsuitable foods, or irregular feeding. Sometimes, however, colic is the result of insufficient clothing of the abdomen and lower limbs; and this cause, therefore, may also require attention.

COLITIS, SIMPLE ACUTE.—The patient must rest in bed until the diarrhœa has ceased. Warmth should be applied to the abdomen in the form of a hot rubber water-bottle. Sherry whey, or milk boiled and diluted, should constitute the principal articles of food. An initial dose of castor oil or pulv. rhei co. may be given, followed by a mixture consisting of tinct. catechu, tinct. opii, tinct. zingiberis, and mist. cretæ, but this should not be continued too long, as it is apt to produce very persistent constipation. During convalescence attention should be paid to diet, and general tonic treatment will be called for.

COLITIS, MUCOUS.—This condition is a very difficult one to treat; and occurring as it so often does in neurasthenic subjects, this fact adds not a little to its intractable nature. The patient must be kept in bed. Diet is of the utmost importance. Farinaceous foods usually agree well, such as sago, tapioca, and arrowroot prepared with milk. One of the so-called infants' "foods" may also be tried. Two of the best are Horlick's malted milk and Mellin's food. Clear soups are also indicated. General tonics, such as *nux vomica* and iron combined with arsenic, are generally called for, while in many cases bromides seem to do good. For the diarrhœa nothing acts so beneficially as a mixture of bismuth and opium. Enemata sometimes appear to

help the patient. The pelvis being raised, a tube is passed into the rectum as far up as possible. The injection must be made very slowly, and should consist of 2 or 3 pints of a warm saturated boracic solution.

When ordinary measures fail, as they often do, an examination of the rectum and sigmoid flexure of the colon should be made by means of the sigmoidoscope. If a definite lesion cannot be discovered an exploratory incision may be made. When the cause of the colitis is a chronic inflammation of the mucous membrane of the bowel the operation which gives the best results is stated to be appendicostomy, the artificial opening being kept open for some months, but it should only be suggested to the patient as a last resource. Partial resection of the colon has also been recommended.

CONGESTION, PULMONARY.—As a rule, relief is obtained by propping the patient up in bed, and applying cups to the bases of the lungs. Better still, however, is wet cupping. If the heart is labouring under difficulties some diffusible stimulant, such as *spt. ammon. arom.*, *spt. ætheris*, or brandy will be called for. At the same time the judicious use of *digitalis* or of *strophanthus* is advisable. Sometimes a calomel purge acts in a marvellous way in relieving the patient's distress. Oxygen inhalations may also be of service in some cases.

CONSTIPATION.—In the treatment of this condition, which is practically normal in women and more common in men than most people suppose, the following are to be avoided : (1) the habitual use of purgatives, and especially of castor oil, Gregory's powder, or of cascara, or other drug in the form of tablets; (2) the excessive use of tea and cocoa as beverages, potatoes, milk puddings, and cheese.

Regularity in attending to the call to stool should be enjoined on patients. Those who suffer from hæmorrhoids should evacuate the bowels just before retiring for the night ; those who are not so afflicted should do so immediately after breakfast. Many women suffer from constipation because the pressure of their corsets

prevents the proper action of the abdominal muscles during defæcation. This fact should be kept in mind. Diet also requires attention. Porridge, served with treacle, is very palatable, and forms an excellent breakfast dish. Stewed prunes and fig pudding are also beneficial. Vegetable broths, and salads prepared with oil, should be frequently taken.

Massage of the abdomen with a rough towel sometimes has a good effect. If the patient is inclined to be stout and leads a sedentary life exercise should be ordered. Drugs should be considered last of all. A glass of Apenta water before breakfast is excellent. Otherwise a teaspoonful of pulv. glycyrrhiz. co. at bedtime, or ten to fifteen minims of extr. cascaræ liq. may be prescribed. A useful pill is pil. colocynth et hyoscyami (grs. v), or one composed of equal parts of the latter and pil. hydrarg. may be substituted. Half a grain of aloin combined with 3 grains of extr. cascaræ sicc. makes a very good pill, and it is well to add $\frac{1}{4}$ grain of extr. bellad. sicc. to prevent griping. Glycerine suppositories and enemata are not to be recommended in the treatment of chronic constipation. They only serve, as a rule, to make matters worse by leaving the cause untreated, and by still further weakening the intestinal peristalsis.

Constipation in infants is usually due to improper feeding, the use of citrated milk, or to constipation in the mother if the baby is being breast-fed. In older children it generally arises from neglect, but may be due to the pressure of tuberculous abdominal glands, or the presence of an anal fissure. In ordinary cases a teaspoonful of salad oil or cream or of fluid magnesia relieves the constipation of infants. In the case of older children the best remedies are syr. cascar. aromat., syr. sennæ, or pulv. glycyrrhiz. co., combined with attention to diet, and above all regularity in habit. School children are in these days often neglectful in this respect.

CONVULSIONS, INFANTILE.—The immediate treat-

ment consists in putting the child into a hot bath, or in applying cold to the head and warmth to the feet. Later two ounces of warm olive oil should be administered by the bowel, and a teaspoonful of castor oil by the mouth. If the convulsions continue, chloroform inhalations may be necessary, or 5 grains of chloral hydras may be injected per rectum.

Meanwhile the cause should be looked for. It is often improper feeding, such as the use of one of the so-called infants' "foods," or of bread and milk, tea and so on. These are all unsuited to young infants, and often cause convulsions. Rickets is another fruitful source. The onset of pneumonia or of some infectious disease may be heralded with a convulsion. Oxyurides are also frequently responsible. Teething is never a cause in healthy children who are being properly fed. The most intractable form is that which occurs in infants suffering from some cerebral affection.

CRETINISM.—The treatment consists in administering thyroideum siccum in gradually increasing doses, commencing with $\frac{1}{2}$ grain at bedtime, and going up to 5 grains a day in divided doses. It is well to give $\frac{1}{2}$ grain or even more once a day for the rest of the patient's life.

CYSTITIS.—Apart from surgical procedures, the physician can do a great deal to alleviate the patient's sufferings. The patient should be kept warm in bed, and have a hot hip bath with mustard night and morning. Diet should be largely a milk one, with plenty of liquids. Contrexéville water is excellent. The bowels must be kept open by means of salines. For the frequency and pain of micturition a good prescription is:—

R	Pot. Bicarb.	.	.	.	.	3ij.
	Pot. Acetat.	.	.	.	.	3ij.
	Tinct. Hyoscyami	.	.	.	.	3ss.
	Inf. Buchu ad	.	.	.	.	3vj.
						S. et M. ut Ft. Mis.

Sig. A tablespoonful to be taken in water every four hours.

Ten grain doses of acid. boric., or of salol, may be tried ; while hexamine (grs. x) has a special reputation as a remedial agent. Lavage of the bladder with warm boracic lotion often affords marked relief.

DIABETES INSIPIDUS.—Tonic treatment is indicated, combined with warmth, and the avoidance of over-exertion. No drug has any marked influence on the course of the disease. The liquid extract of ergot in full doses (3j t.d.s.) may be tried ; while in cases due to syphilitic infection a combination of liq. hydrarg. perchlor. (3ss to j) with pot. iodid. (grs. v to x) is useful. Phenazonum in 5- to 15-grain doses thrice daily has been favourably reported on, while inhalations of carbonic acid gas have been tried in one or two cases with success.

DIABETES MELLITUS.—Careful diet must be insisted on ; but sometimes the sudden and rigid adherence to a non-starchy dietary precipitates an attack of coma. Sugar and starch must be excluded. Butter-milk may be taken in large amounts. The bread is the difficulty. All forms of anti-diabetic bread are extremely unpalatable. Those which are agreeable contain starch, in spite of statements made to the contrary. Aleuronat, almond flour, or gluten bread may be used. Cabbage, spinach, lettuce, cucumber, onions, tomatoes, celery, and watercress may be taken ; but potatoes, turnips, parsnips, peas, and beans should be forbidden. Rice, sago, and, indeed, all farinaceous foods must be stopped. All foods which fatten are generally beneficial, such as butter, cream, bacon, and eggs. Nuts, being rich in fat, are often a commendable article of diet. Red meat, white fish, and chicken may be eaten. Saccharine must be used instead of sugar for sweetening purposes. Fruits, as a rule, must be absolutely forbidden. In the way of beverages, tea and coffee are allowable, as are also seltzer and Vichy water. Whisky is often stated to be quite safe, but as some blends contain a considerable amount of sugar this statement requires some qualifica-

tion. Claret, burgundy, and dry sherry may be taken in moderation. In some cases a small amount of potato or of oatmeal seems rather beneficial than otherwise. The so-called oatmeal cure (for details of which special monographs must be consulted) appears undoubtedly valuable in reducing the amount of acetone in the urine.

The Allen treatment must be specially referred to. For the first two days all fats are omitted from the diet. Then the proteins are cut out. Afterwards the carbohydrates are reduced by one-half each day until only a small amount is taken. The patient then fasts for several days until sugar disappears from the urine. During the fasting period clear soups and weak tea only are allowed. If at the termination of three or four days of fasting sugar is still present, a small amount of carbohydrate or of protein is given for some days, and the fasting stage entered on again. The diet is then so regulated as to keep it sugar-free. The patient should fast on one day in the week.

Apart from diet, attention must be given to secure perfect action of the skin and bowels. Warm baths, and the use of mineral waters are to be recommended in all cases. The patient must always wear woollen under-clothing and avoid chills. Late hours are harmful. A useful remedy in some cases is either sod. salicyl. in 10-grain doses thrice daily, or acid. acetyl-salicyl. in similar amounts. These may cause dyspepsia. If so, we may order keratin-coated capsules of the latter. In cases of simple glycosuria these remedies are often curative, while in diabetes mellitus they may prove of value. Next to them comes codeina, which may be given as the phosphate in doses of $\frac{1}{2}$ grain in the form of a pill.

When coma threatens, the patient should be fed entirely on buttermilk, while large doses of sod. bicarb. must be administered, together with inhalations of oxygen.

DIARRHŒA.—The golden rule here is to ascertain

the cause and seek to remove it. It is usually only a symptom ; and it is well to keep in mind that cancer of the rectum and chronic constipation are two important causes which may be overlooked unless a very careful examination is made. Apart from dysentery and other diseases of which diarrrhœa is the most prominent symptom, this condition may be due to nervousness, chills, or improper food. In severe cases absolute rest in bed should be enjoined. Diet is important. The patient must have boiled milk, diluted with water if necessary. In less severe cases he may have cornflour or arrowroot in addition. At first a dose of castor oil (℥ss) with tr. opii. (℥x), or of pulv. rhei co. (grs. 60), may be administered. This will secure that all irritating material is got rid of. Later on, astringents and sedatives may be given, such as pil. plumbi c. opio (grs. v), tinct. catechu (℥xx), bismuth. carb. (grs. xv), mist. cretæ (℥ss) or acid. sulphuric. aromat. (℥x). In some cases β -naphthol in 5-grain doses acts well. Another favourite remedy is pulv. cret. aromat. (grs. 30). At the same time the feet and abdomen must be kept warm.

Lime water is often added to milk in cases of diarrrhœa, but as this contains such an infinitesimal quantity of lime it must be given in somewhat large amounts to be of any service. It is also well to remember that beef tea and aerated waters tend rather to cause diarrrhœa than to check it.

When diarrrhœa occurs in young infants it is usually due to some dietetic error. It is rarely met with in breast-fed babies. The cause may be the use of a dirty infant-soother, a long tube bottle, or some patent "food." Again, it may be due to the giving of indigestible substances, such as farinaceous foods, rusks, and the like. The treatment consists in administering a teaspoonful of castor oil, and following this up by prescribing hydrarg. subchlor. (gr. $\frac{1}{4}$) and bismuth. carb. (grs. iij) thrice daily, at the same time giving only diluted boiled milk to drink. In very severe attacks

only boiled water should be allowed for twenty-four hours (there is no marked advantage in giving albumen water in such cases) and milk feeding resumed very gradually. A few drops of well-diluted brandy may be necessary as a stimulant, especially if the fontanelle is much depressed.

Simple diarrhœa in children can often be checked by giving a dose of pulv. rhei co., and keeping the patient for a day or two on boiled milk and farinaceous foods. If the diarrhœa persists in spite of such simple treatment, care should be taken to see that the patient is not the subject of enteric fever (often slight in the child), or of abdominal tuberculosis.

DIPHTHERIA.—Too much reliance should not be placed on a negative bacteriological report in such cases. If the case is *clinically* one of diphtheria an injection of antidiphtheritic serum should be given, and the child kept strictly at rest in bed. Four to eight thousand units of serum should be injected under the skin of the abdomen, every precaution being taken to avoid sepsis. The needle puncture may be closed by painting on a little flexile collodion and covering it over with cotton wool or boracic lint held in place by means of a domette bandage. The part should not be rubbed after the injection, the serum being allowed to become absorbed of itself.

The patient should be isolated in a large, airy room, and all discharges must be immediately burnt. Diet ought to be of the lightest possible description, such as milk, sago-gruel, or thin arrowroot made with milk, beef juice and the like. The heart should be specially guarded, as sudden paralysis may occur either early during the height of the disease, or later during convalescence. In cases of threatened heart failure we must rely on brandy and strychnine.

In laryngeal cases tracheotomy or intubation may be called for at any moment; and where the larynx is involved the use of a steam kettle is of very great value.

The period of convalescence from this disease demands special care, as cardiac or other forms of paralysis may then begin to appear. Prolonged rest in bed should, therefore, be enjoined in every case, and if even then paralysis supervenes the patient should be put back to bed and treated by tonics such as strychnine, and cod-liver oil. If the limbs are affected massage is useful in restoring their lost function. As a rule, the prognosis is good in cases of diphtheritic paralysis, unless the heart is specially involved.

DROPSY.—(See HEART DISEASE; NEPHRITIS.)

DYSENTERY.—In the acute variety of this disease the patient must rest in bed and be kept entirely on milk, with the occasional ingestion of small quantities of beef or chicken jelly. For the thirst sips of iced water may be given. All food must be taken cold, and as the number of stools diminishes soups and farinaceous foods may be gradually added to the diet. Brandy or good dry sherry is usually a necessary adjunct. Irrigation of the colon with hot normal saline solution is to be highly recommended. It not only relieves the severe tenesmus, but it also appears in some cases to soothe the pain. A drachm of sod. sulph. dissolved in half an ounce of aq. menth. pip. may be given every four hours, or magnes. sulph. may be used in the same way. The treatment by such saline remedies is often very satisfactory, but may fail. If such is the case ipecacuanha may be tried. The preparation used must be absolutely fresh. Twenty minims of tinct. opii should be previously administered. Sixty grains of ipecacuanha powder is the usual dose, and it is best given in a wafer paper or in cachets. If vomiting threatens a small mustard poultice should be applied over the epigastrium and no liquid should be taken. The dose may be repeated within twelve hours; and the administration of the ipecacuanha powder should be continued for some days in gradually lessened doses. Another remedy of great value is emetine hydrochloride given hypodermically.

In chronic cases it is often advantageous to allow a somewhat liberal diet, including fish, chicken clear soups, farinaceous puddings, eggs, dry toast, and weak tea or coffee. The drug treatment is practically the same as in the acute variety. Copious and frequent enemata of boric acid are often beneficial, while nitrate of silver enemata (gr. $\frac{1}{2}$ to the ounce) are highly spoken of. Enemata of quinine sulphate solution are also well recommended. These should be given night and morning. They are usually painful, and may produce nausea. After recovery care should be taken to guard against chills and constipation, while the diet should be regulated, and alcohol taken, if at all, in strict moderation.

DYSIDROSIS (CHEIROPOMPHOLYX). — General tonics, such as strychnine and iron, are usually indicated. Bathing with oatmeal and water is sometimes helpful. A dusting powder composed of equal parts of boric acid, French chalk, and starch, with the addition of 5 grains of salicylic acid to the ounce, is of special value. Change of air may be necessary. In most cases it is better to avoid the use of soap altogether for a time, but later a mild salicylic acid soap may be ordered.

DYSPEPSIA.—Acute cases are best treated by emptying the entire gastro-intestinal tract. This may be accomplished by giving a saline purge such as magnes. sulph., and keeping the patient on small amounts of plain water for at least twelve hours. He may also have a mixture of sod. bicarb. (grs. x), and bismuth. carb. (grs. x), made up to \mathfrak{z} ss with aq. menth. pip. Mustard applied over the epigastrium will relieve the pain. In severe cases, where vomiting is troublesome, a mixture of bismuth and dilute hydrocyanic acid should be tried. Ordinary diet should be resumed very gradually, and anything which disagrees must be at once stopped. Chronic cases are often dependent on bad feeding, carious teeth, carried food, and hurried meals. Constipation is a very common accompaniment. These facts

must be kept in mind in carrying out the treatment of any particular case. In directing the treatment it should not be forgotten that many dyspeptic patients are neurasthenic or suffer from hæmorrhoids. The first indication is to relieve the constipation. This is best accomplished by ordering pulv. jalap. co. (grs. xx) with hydrarg. subchlor. (grs. iij) to be taken at bedtime and followed by a seidlitz powder in the morning. The patient must be told to eat slowly and to chew his food thoroughly before swallowing it. He should have his meals at regular hours with not too long intervals between. He should not eat when tired. A cold sponge over in the morning followed by vigorous friction of the body with a rough towel is beneficial. He should have a certain amount of open-air exercise every day, such as golfing, cycling, riding, or even gardening.

As regards diet, this must be plain, wholesome, and easily digested. It should be varied. Too much farinaceous food is to be avoided. Boiled and fried foods are to be abstained from, likewise meats which have been re-cooked. Stews are also very bad for dyspeptic patients. Fat and greasy dishes are also injurious. Pork, veal, rabbit, salmon, and herring are to be forbidden. Uncooked vegetables, such as celery and radishes, are very indigestible, and cooked vegetables, such as cabbage, cauliflower, turnips, carrots, peas, beans, are also better avoided. Pickles and cheese are unsuitable, so are rich soups, gravies, and sauces. Sweets, jellies, and pastry, new bread in every form, and very acid or very sweet fruits are among the articles of diet which dyspeptic patients may not take. As to beverages, tea, cocoa, and coffee, unless prepared without milk and sugar, as well as beer and acid wines, must not be taken. Fluids, as a rule, should be taken an hour before or two hours after meals, but never with food.

In cases associated with hyperacidity it is well to restrict the diet as far as possible to finely minced beef

or mutton with thin, stale bread and butter. Milk with lime water, mashed potatoes, and stewed fruit may be allowed. As a beverage Vichy water is to be preferred. Where flatulence is a prominent feature all sweet and farinaceous foods must be stopped. Tea is often injurious, and ought to be taken in moderation. The patient should be directed to sip a glassful of hot water before meals. The following outline diet will serve to illustrate how an average case of dyspepsia should be fed :—

Breakfast.—White fish, or well-frizzled bacon, or an egg lightly boiled or poached ; stale bread or dry toast ; a small cup of unsweetened coffee.

Luncheon.—Roast beef, or preferably mutton, or a mutton cutlet or boiled white fish ; a small amount of well-mashed potato ; Vichy water.

Tea.—A cup of beef-juice with a water biscuit or dry toast.

Dinner.—A small amount of clear soup (rich soups are not to be taken) ; boiled white fish, mutton, underdone beef, sweetbread, or fowl ; a small amount of mashed potato and a little spinach ; plain custard pudding or stewed apples ; Vichy water. A small cup of coffee may be taken one hour after dinner. Too much smoking is highly injurious.

As to the medicinal treatment, apart from the relief of the constipation already alluded to, we may prescribe the following mixture to be taken before meals :—

R	Sod. Bicarb.	.	.	.	.	grs. 90.
	Tr. Nuc. Vom.	.	.	.	.	ʒj.
	Glycerini	.	.	.	.	ʒss.
	Inf. Gent. Co. ad	.	.	.	.	ʒvj.
					S. et M. ut Ft. Mist.	

Sig. A tablespoonful for a dose.

Sometimes more benefit is derived from giving an acid and bitter stomachic mixture after meals. Here are two which may be prescribed in such cases :—

moderation), salted meat or fish, pork, veal, oysters, salmon, sauces, pickles, pastry, new bread, excess of farinaceous foods, sweets, cheese, beans, peas, turnips, onions, cucumbers, celery, oatmeal, strawberries, gooseberries, prunes, dates, and figs. Alcohol is most injurious and must be absolutely forbidden. Moderation in the use of tobacco is also advisable. Even tea and coffee may prove prejudicial in some cases.

The bowels should be kept open by means of suitable aperients, such as hydrarg. subchlor. (grs. v) or pil. hydrarg. (grs. v) at bedtime, followed by a seidlitz powder in the morning. One of the mineral waters sipped while dressing may be substituted with advantage. In gouty cases 5-minim doses of vin. colchici, either alone or in combination with pot. bicarb., should be ordered. In anæmic cases a course of iron, and in debilitated patients a combination of iron with cod-liver oil, may be prescribed. The internal use of ichthyol has proved helpful in suitable cases, especially perhaps in those associated with much erythema. The clothing also deserves some attention. An eczema may be considerably aggravated by the use of tight or irritating garments.

Locally we must first of all see that all sources of irritation are removed. Frequently the sole cause of the continuance of the trouble is the use of some irritating application. In cases of simple eczema it is a mistake to order powerful tar ointments to relieve the itching. These only aggravate the condition we are endeavouring to cure. The itching is often extremely intense. The best method of relieving this distressing symptom is to keep the affected parts constantly covered with a moist boracic dressing or smeared over with a 1 per cent. salicylic acid ointment, or a lotion of boracic acid and calamine. To relieve the local congestion and repair the injured epidermis, the following is a very useful application :—

R	Acid. Salicyl.	.	.	.	.	grs. x.
	Zinci Oxidi.	.	.	.	.
	Pulv. Amyli	.	.	.	.	āā ʒij.
	Adipis Lanæ Hydros.	.	.	.	.
	Paraffin. Mollis	.	.	.	.	āā ʒss.
						M. ut Ft. Ung.
	<i>Sig.</i> To be applied night and morning.					

A useful lotion consists of acid. boric. ℥ij, zinci oxid. ℥ij, glycerini ℥ss, liq. calcis ad ℥viiij. In all cases crusts and scales should first be removed by the application of starch poultices, which are readily prepared by dissolving a tablespoonful of starch in a pint of boiling water and spreading this paste on pieces of linen.

In more chronic cases some stimulating ointment must be used for a time. A useful formula is the following :—

R	Liq. Carbonis Deterg.	. . .	3j.
	Ung. Hydrarg. Ammon.	. . .	3ij.
	Paraffin. Mollis ad	. . .	3j.
			M. ut Ft. Ung.
	<i>Sig.</i> To be applied night and morning.		

During the healing process in all cases of eczema great care should be taken lest the newly forming epidermis becomes destroyed or irritated by the use of soap and water. If necessary, for purposes of cleanliness, the parts may be bathed with oatmeal and tepid water, and dried very gently with a soft linen handkerchief. Needless to say, all patent ointments, soaps, and medicines are absolutely useless in the treatment of this affection; and their use should never under any circumstances be sanctioned by the physician.

EMPHYSEMA.—This condition is so frequently associated with chronic bronchitis that the first indication is to guard the patient as far as possible against chills, as the dyspnoea is always aggravated when a fresh attack of bronchitis comes on. The patient's occupa-

tion is also of importance, but it is not always an easy matter to arrange this in every case. An open-air life is best, but long walks or hill-climbing often aggravate the condition. During the winter and spring months a warm climate is often a necessity. Suitable localities are Bournemouth, Torquay, the Riviera, Egypt, and Teneriffe.

Nourishing food is essential but it should always be of a very easily digested character. The patient's habits as to food and drink must be very carefully regulated at all times. He should avoid every form of strain, and should be in the open air as much as possible. Respiratory exercises are sometimes prescribed with considerable benefit. Compressed air baths may also be tried, but the cases must always be carefully selected, as these baths are very dangerous where there is high arterial pressure, or chronic renal disease. They should not be continued if they do not afford relief. The patient is placed in a chamber, the air of which has its pressure gradually raised and then steadily lowered after a time. Inhalation of carbonic acid gas has also been highly spoken of.

Two drugs are of special service, viz., strychnine and potassium iodide, but they cannot safely be prescribed together. Iodipin in $\frac{1}{2}$ - to 1-drachm doses often affords marked relief to the dyspnœa. Occasionally a combination of pot. iod. with liq. arsenicalis seems to act better than the iodide given alone. In a great many cases a course of cod-liver oil is most helpful, provided the patient is thin and badly nourished.

When the right ventricle begins to show signs of dilatation, digitalis and caffeine are the drugs to bear in mind. A combination of digitalis with ammon. carb. is frequently beneficial at this stage, while at the same time diuretics may be ordered. If there is much swelling of the ankles with pulmonary œdema the patient should rest in bed, and have cups applied to the base of the lungs.

EMPHYEMA.—This is a purely surgical affection, and one which is not amenable to medical treatment. After the operation the patient must be made to go through a course of respiratory exercises. Tonics and cod-liver oil will also be necessary; and a change to the seaside must be thought of.

ENDOCARDITIS.—(See HEART, DISEASES OF.)

ENTERIC FEVER.—(See TYPHOID FEVER.)

ENTERITIS.—(See DIARRHŒA.)

ENURESIS.—In every case the urine should be carefully examined. Phimosi or preputial adhesions, if present, should be treated. A loaded rectum sometimes is a potent factor, and a course of some laxative medicine such as pulv. glycyrrhiz. co. is then of value. Intestinal parasites, if they exist, must also be got rid of. If the child is debilitated by previous illness tonics should be ordered, such as cod-liver oil and iron. The co-existence of adenoids and enlarged tonsils is not, in our opinion, to be regarded as a frequent cause of enuresis. We have even known cases become greatly aggravated after operation.

The theory that bed-wetting is due to polyuria and that it is simply a weak bodily condition associated with the ingestion of starchy food is perhaps worth bearing in mind. In some cases, but by no means in all, the elimination of starchy food from the diet materially aids in bringing about a cure. The diet, as a rule however, should consist largely of milk, eggs, fish, and fruit. The patient should have nothing to drink for at least two hours before retiring to rest. It is well to have both bowels and bladder emptied just before going to bed. The patient should not lie on his back, but on one side. Cold douching of the spine is often very beneficial, while a change of air frequently effects a cure.

The drug treatment of this condition is quite a secondary matter compared with attention to the details already referred to. Personally we have sometimes found strychnine more valuable than belladonna.

The latter is best prescribed in the form of its alkaloid, atropine, commencing with 1-minim doses of the liq. atropinæ sulph. Other suggested remedies are ergot and chloral, while bromides are occasionally useful, especially in those cases associated with pavor nocturnus. Recently thyroid gland has been used very successfully, but it certainly is not a cure in every case. It seems to act best in cases which are associated with poor development and malnutrition. Epidural injections of normal saline solution into the sacral canal are not to be recommended. In every case complete rest from school work and a change of air, preferably at the seaside, will be of far greater benefit than mere drug treatment.

EPILEPSY.—In the first place the diet may well be considered. A mixed diet is probably best, with a minimum of red meat. There seems no advantage, but rather the reverse, in restricting the diet to white food and vegetables. Fresh vegetables and fruits, however, are often advantageous in regulating the bowels and preventing constipation. Tea and coffee, as well as alcohol and tobacco, ought to be strictly interdicted, as these are apt to prejudicially influence the nervous system. Aerated waters are very beneficial in helping to prevent symptoms of bromism. The elimination of salt as far as possible from the diet aids the action of drug treatment.

As regards drugs, the bromides must be placed first. On the whole, potassium bromide appears to be more effective than the others. A combination of potassium, sodium, and ammonium bromide is sometimes, however, more satisfactory than the first-named given alone. To prevent bromism it is well to combine their administration with small doses of liquor arsenicalis. Bromides should be given in 20-grain doses or more about half an hour after meals, and the administration should be kept up for at least two years after the last seizure, although smaller doses may then be given and

the intervals between the administration prolonged. The biborate of soda has been highly recommended, while belladonna has also been tried with some measure of success.

The hygienic treatment of this disease must not be neglected. A quiet country life is to be preferred. Clothing should be warm, and only woollen garments worn next the skin. Cold sponging of the body, followed by friction with a rough towel, and regular hours are essential to successful treatment.

Epileptic colonies are the latest suggestion for the management of cases of this disease. The object is to educate youthful epileptics according to their special needs, and to supply suitable occupation to adults which shall as far as possible retard or prevent altogether the tendency to mental degeneration which is so apt to ensue in such cases. The colonies are situated in some rural district where regular employment, adapted to the peculiar needs of each individual case, is possible. In such a colony the whole life of the patient is regulated as to hours of work and rest, diet, and so on. Care, however, is necessary in the selection of patients, as obviously not every case of epilepsy is equally suitable for admission to such a colony.

EPISTAXIS.—The relation of this condition to serious constitutional or organic disease must be kept in mind. In many such cases it is inadvisable to take very active measures to prevent it. When due to local causes, or if excessive, then simple treatment, such as the application of cold compresses to the upper part of the nose or compression of the nostrils, may be tried. Failing this the anterior nares may be plugged with cotton wool soaked in hazeline, or with gauze saturated with glycerinum acidi tannici. Sometimes a hot mustard foot bath has a very decided effect in arresting nasal hæmorrhage. The internal administration of calcium lactate in 10-grain doses thrice daily has been recom-

mended to prevent recurrence, and certainly has proved efficacious in some cases.

ERYSIPELAS.—Isolation of the patient is the first measure to be adopted. The sickroom should be large and airy, with a modicum of furniture. Locally, the parts may be painted with tinct. iodi mitis or with a lotion of ichthyol (3ij to the ounce). The latter is very soothing, and relieves the heat and tension in the affected area. The bowels must be kept open by means of salines, and the diet at first should consist mainly of milk, beef jelly, and abundance of liquid. Later, fish and chicken may be added.

Internally cardiac stimulants, such as strophanthus, caffeine, and strychnine, may be called for. The old specific, tinct. ferri perchlor., given in large doses, appears unnecessary. Recently the use of vaccino-therapy has been attended with considerable success. If possible an autogenous vaccine should be employed ; failing this, one made from a virulent streptococcal strain may be used. In many instances the injection of the vaccine into the patient has been rapidly followed by a fall in the temperature, and an amelioration of the symptoms. As to dosage, it will be found, generally speaking, that the more acute the condition, the smaller should be the dose of the vaccine employed. Of course other means of treatment should be adopted in the first instance, and ought always to supplement vaccino-therapeutic measures.

ERYTHEMA INDURATUM.—This is best treated by rest in the horizontal position, combined with careful bandaging of the affected parts. Tonic treatment is also indicated, such as cod-liver oil and iron. The Röntgen rays may also be tried.

ERYTHEMA INTERTRIGO.—A dusting powder composed of equal parts of zinc. oxid., amylum, and acid. boric. should be prescribed, and the opposing skin surfaces kept separated by means of a layer of absorbent cotton wool or lint.

ERYTHEMA IRIS.—Here tonic treatment is usually necessary. Salicylate of soda is sometimes beneficial. A mild antiseptic ointment, such as equal parts of ung. hydrarg. ammon. and soft paraffin, is generally required.

ERYTHEMA MULTIFORME.—The cause, if known, should be remedied. The gastro-intestinal tract generally requires attention. In rheumatic patients the administration of salicylates may be tried. It is doubtful if external applications are of much value in this disease, but alkaline baths sometimes afford considerable, though temporary, relief.

ERYTHEMA NODOSUM.—The administration of salicylate of soda is indicated, combined with rest in bed and the local application of some sedative lotion such as liq. plumbi subacet.

ERYTHEMA PERNIO.—(See CHILBLAINS.)

ERYTHROMELALGIA.—the pain is best relieved by the administration of cannabis indica and belladonna. Arsenic may also be prescribed. Hypodermic injections of morphia may be necessary. The faradic current has been used successfully in some cases. The limb should be kept raised.

EXOPHTHALMIC GOITRE.—Absolute rest in bed for a period of anything between four weeks and two months, with massage to take the place of active exercise, is of first importance. The diet must be very light but highly nutritious, and should consist of beef, mutton, fish, chicken, milk, cream, butter, eggs, fresh fruit, and vegetables. Stimulants, such as tea, coffee, and alcohol, are to be avoided, as well as sugar and too much starchy food. The latter is very apt to cause flatulence, a condition which readily leads to an increase in the palpitation. At the same time constipation is to be guarded against, as straining at stool is always dangerous. When the patient has so far recovered, a quiet country life should be enjoined, and freedom from worry.

The drugs which may be prescribed in this disease are strictly limited. Bromides, combined with bella-

donna, are serviceable. Sometimes digitalis is also required. Hydrobromate of quinine in 5-grain doses in the form of a pill has recently been recommended, with or without 1-grain doses of ergotin.

Electricity is a form of treatment available in this disease. A weak faradic current may be applied to the cervical region. Other methods which have been suggested are faradisation of the carotids and galvanisation of the neck. Weak galvanic currents, applied for a few minutes two or three times a day, sometimes do good, the anode being placed at the back of the neck, and the cathode moved up and down the side of the neck. Electric baths have also been suggested. The X-rays and radium have both been used with considerable success, and should always be given a fair trial. Excision of a portion of the thyroid is the operative treatment recommended.

Where vomiting or diarrhoea is present great care must be exercised as regards the feeding of the patient, and here morphia with hydrocyanic acid is often beneficial. An ice-bag applied over the præcordia will relieve severe attacks of palpitation.

FACIAL PARALYSIS.—When the affection is the result of a chill, mustard applied over the mastoid region (or emplastr. cantharidini, if preferred) usually affords relief. At first gentle massage, and, later, mild galvanism, applied to the affected muscles, will be found useful. Anything like powerful currents is to be strictly avoided. Sometimes pot. iodid. is beneficial when cure is delayed; and it is always indicated in cases of syphilitic origin. When due to middle ear disease surgical treatment is necessary. In incurable cases the hypoglossal nerve has sometimes been transplanted into the facial nerve with a certain degree of success.

FAVUS.—After removal of the crusts the Röntgen rays are applied as a depilatory. After this the use of some antiseptic ointment is indicated, combined with

thorough washing of the scalp with green soap. The following ointment is an excellent one :—

R. Resorcin
Acid. Salicyl. āā grs. x.
Ung. Sulphuris
Paraffin. Mollis āā ʒss.
M. ut Ft. Ung.

Sig. To be well rubbed into the scalp.

FILARIASIS (GUINEA WORM DISEASE).—

Prophylaxis consists in boiling all drinking water and in securing protection against mosquitoes. The part attacked should be protected by a simple moist dressing of boracic lint. Cold water is then poured over it two or three times a day. This results as a rule in the spontaneous discharge of the parasite. Another method of treatment is to apply carbolic poultices, and then extract the worm by rolling it over a quill, pressure being made all round. Thymol in 2- to 5-grain doses thrice daily has been found curative in some cases, but as a rule drug treatment is absolutely ineffective.

FRECKLES.—These may be removed by applying the following lotion :—

R	Hydrarg. Perchlor.	.	.	.	grs. v.
	Glycerini				
	Spt. Vini Rect.	.	.	.	āā ʒj.
				S. et M. ut Ft.	Lotio.

Sig. To be applied night and morning.

This lotion irritates the skin after a time. When this occurs its use should be stopped, and an ointment, consisting of equal parts of lanoline and ung. zinci, used. Another favourite remedy is :—

R	Hydrarg. Ammon.				
	Bismuth Subnit.	.	.	.	āā ʒj.
	Paraffin. Moll.	.	.	.	ʒj.
					M. ut Ft Ung.

Sig. To be applied night and morning.

FRIEDREICH'S ATAXIA.—The treatment of this disease is largely symptomatic. Suspension, galvanism, massage of the limbs, and suitable co-ordinated exercises will all be found more or less useful. If the cramps are specially painful, massage generally affords considerable relief. Tonics, such as iron, arsenic and cod-liver oil, may be prescribed, while strychnine is sometimes beneficial.

FURUNCULOSIS.—(See BOILS.)

GALL STONES.—For the treatment of an attack of colic see under COLIC, BILIARY.

Regular out-of-door exercise should be enjoined. A free daily movement of the bowels should be maintained. Diet must be carefully regulated. Large amounts of fluid ought to be taken. Hot water is one of the best liquids in such cases. Lean beef, mutton, chicken, white fish, well-cooked cereals, fresh green vegetables, and non-sweet fruits are allowed. All sweet vegetables and fruits must be forbidden. Fatty foods are also injurious. A teaspoonful of sodium phosphate should be taken in a glass of hot water two or three times a day half an hour before meals. Alcohol is usually found to be injurious.

Medicinal remedies are sod. salicyl. (grs. x t.d.s.), and glycocholate of sodium (grs. x t.d.s.) in capsule form. Of these the second mentioned is supposed to be the most generally useful, especially when taken in large doses. When other measures fail operative treatment, at the hands of an expert, is frequently highly successful, and should be kept in view in every case, more especially if attacks of colic recur frequently.

GASTRIC ULCER.—Where there has been severe hæmorrhage the patient should not be moved, but made as comfortable as possible for the time being. The patient, when somewhat recovered, may then be carefully lifted into bed, and kept with head low. A hypodermic injection of morphine (gr. $\frac{1}{4}$) and atropine

(gr. $\frac{1}{100}$) should be given at once. As a rule no other drugs are required, and only do harm.

Diet is the one essential here. Rectal feeding must be tried at first. The enema may consist of an egg beaten up with 2 ounces of milk, and a dessertspoonful of brandy added. Its retention will be facilitated by the addition of 20 minims of tinct. opii. Rectal feeding, however, cannot be relied on, and accordingly mouth feeding must be commenced as speedily as possible. In fact, rectal feeding is altogether unsatisfactory, and usually causes more trouble and discomfort than are compensated for by any benefit derived. At first very small quantities (dessertspoonfuls or less) should be given every hour. Milk diluted with barley water or malted milk may be tried. If this is badly borne beef-juice in teaspoonful amounts may be substituted. Wine whey is sometimes retained when other things are vomited. After a day or two the patient is usually able to take a fair amount of milk. Next would follow custards, milk puddings, fish, chicken, and dry toast. Should any of these articles cause gastralgia they should be withheld for a time. When milk disagrees koumiss will sometimes be found invaluable. Thirst is often very troublesome. The injection of normal saline into the rectum helps to relieve this symptom, or the patient may be given small pieces of ice to suck.

Excellent results are got by treating this condition all through with *ol. olivæ*, at the same time allowing the patient as liberal a diet as can be borne. As recovery takes place the anæmia, which is always present, must be combated by the administration of iron in the form of the exsiccated sulphate (grs. ij to iij t.d.s.).

GLANDERS.—Mercurial inunctions and the internal administration of mercury and potassium iodide may be tried. Hypodermic injections of mallein may also be given. Starting with 1 mgm., the dose should be gradually increased up to 30 mgms. Isolation of the patient is, of course, most essential.

GLOSSITIS.—In acute cases of this disease surgical treatment is generally called for. Apart from this, mild antiseptic mouth washes, ice, and the administration of a calomel purge may be ordered.

In chronic cases it is well to consider the cause. This may be syphilis, alcohol, tobacco, carious teeth, or the ingestion of hot and highly seasoned food. Mouth washes of pot. chlor. (grs. x to the oz.) may be given, and if syphilis is suspected, pot. iod. may be administered internally combined with mercurial inunctions. As chronic glossitis may be the forerunner of malignant disease, irritation of the tongue by powerful local applications must be carefully avoided.

GLYCOSURIA.—(See DIABETES MELLITUS.)

GOITRE.—In the parenchymatous form of this disease early treatment is often highly successful. Thyroideum siccum (grs. j to iij t.d.s.) is the drug to try in the first instance. The younger the patient and the more recent the enlargement of the thyroid, the more likely is this remedy to act beneficially. Inunctions with ung. hydrarg. iod. rubr. or with ung. iodi have also been recommended. Sometimes pot. iod. is given with marked benefit. The application of liquor epispasticus may also be tried.

GONORRHOEA.—At first weak urethral injections of pot. permang., combined with the internal administration of pot. citrat. and inf. buchu, are all that is necessary. The patient should rest as much as possible, keep the bowels open by means of salines, and live on a diet of milk and white food. If erections are troublesome, small doses of pot. brom. may be added to the mixture. It is well to wear a suspensory bandage. Later, capsules of copaiba may be ordered, and if the discharge continues the patient may be told to inject zinc. sulph. (grs. ij to the oz.) into the urethra twice daily after emptying the bladder. In chronic cases a 1 per cent. protargol solution forms a very satisfactory injection. If epididymitis supervenes the patient must

be put to bed and have hot fomentations. He may also apply ung. hydrarg. over the swelling.

For gonorrhoeal arthritis vaccine treatment has already given excellent results. Sensitised vaccines are extremely useful in acute cases.

The serious nature of gonorrhoea should always be impressed upon the patient, and strict abstinence from alcohol enjoined. As gonorrhoea in the male is often a fruitful source of genital disease in the female, this fact should always be kept in mind, and patients must be warned of this.

GOUT.—In acute cases the affected limb should be elevated and a fomentation of lead lotion applied. Sometimes hot fomentations of sod. bicarb. are also beneficial. Colchicum should be given internally at the same time in doses of 5 to 10 minims of the vinum, combined with 20-grain doses of pot. bicarb. or of pot. citr. A calomel purge is also indicated. The diet should consist solely of milk, preferably skimmed and alkalised by the addition of potass. bicarb. It should be borne in mind, however, that many gouty patients cannot tolerate milk. In such cases gruels of sago or oatmeal made with milk, or one of the malted infants' foods, may be substituted.

In chronic cases diet is one of the first essentials. We shall, therefore, indicate those articles which may and those which may not be allowed. In all cases it is unwise to restrict the diet too suddenly. The patient may have: milk; eggs sparingly; farinaceous foods; white fish; beef, lamb, and fowl in strict moderation; celery, French beans, well-cooked potatoes, cucumber, cauliflower, and Brussels sprouts; vegetable soups. He should, however, avoid: shell-fish; salmon, halibut, cod, smoked fish of all kinds; pork, fat bacon, veal, salted meats, and game; radishes, spinach, asparagus, and tomatoes; pastry, new bread, jams, and jellies. Saccharin is to be preferred to sugar as a sweetening agent. He may have weak tea or coffee.

Fruits are better avoided altogether ; while pickles, spices, and condiments of all kinds are harmful. Alcohol in the form of brandy or whisky may be taken in strict moderation. Most wines are injurious, as are also beer, ale, porter, stout, and cyder.

The affected joints are often benefited by the application of hot douches followed by gentle massage. The internal administration of colchicum is more or less beneficial, but in a great many cases it seems to have no effect whatever on the disease. Other remedies, such as lithia, which is too depressing, and piperazin, are not reliable. Baths, either electric or hot-air, frequently work wonders. The patient should take moderate exercise daily, and guard against dyspepsia and constipation. Clothing should be warm but by no means heavy. Cold and depressing climates are to be avoided. Vichy water is a useful beverage. If there is a tendency to bronchitis the patient should always winter abroad or in the south of England. Constant observation should be kept on the action of the heart, and if necessary it may be toned up by the occasional administration of strophanthus or of caffeine.

Patients frequently ask their medical man to advise them in the selection of a suitable watering-place. There are many, all recommended by their advertisers as being suitable. We must, however, be largely guided by the patient's strength, social position, and personal tastes. Thus one patient may be quite able to stand the short journey to Buxton, whereas he could not go abroad. On the whole, the following places are most suitable for gouty patients : Buxton, Harrogate, and Bath. Of French watering-places we can speak very favourably of Aix-les-Bains and Contrexéville. Royat, however, is also highly recommended, especially in respiratory affections of gouty origin.

HÆMATEMESIS.—The patient must be kept completely at rest and an ice-bag placed over the epigas-

trium. A hypodermic injection of morphia (gr. $\frac{1}{4}$) with atropine (gr. $\frac{1}{100}$) does good by quieting the circulation and calming the patient. All mouth feeding should be prohibited for at least twenty-four hours. When the bleeding has been controlled the cause must be sought for, and appropriate treatment carried out. Thirst is often troublesome and causes the patient to be restless. If the patient has lost much blood, and is in consequence collapsed, warm normal saline transfusions may be given, and strychnine injected hypodermically. The patient should be kept very quiet and should not be allowed to talk. After mouth feeding is resumed, which will usually be in the course of forty-eight hours, diluted milk must be the principal source of nourishment, and only gradually should the ordinary diet be resumed. The sickroom must be kept cool and well aired.

HÆMATURIA.—Rest in bed is essential. The patient should be kept on a strictly milk diet. Alcohol must be forbidden. Internally extr. ergot. liq. (M30 every four hours) or calcii lactas (grs. xv t.d.s.) may be tried. As a rule, however, surgical intervention is called for in such cases.

HÆMOGLOBINURIA.—The patient should be put to bed, and kept very warm. The heart ought to be judiciously stimulated by the administration of alcohol, or other diffusible remedy. The inhalation of amyl nitrite is said to be of value in aborting or even preventing an attack. The patient ought to have abundance of fluids to drink, and if vomiting is troublesome he may have warm water enemata. Potassii acetat and potassii citrat in full doses are often found very beneficial.

HÆMOPHILIA.—There are female as well as male bleeders. This fact should be borne in mind. If bleeding occurs, rest becomes absolutely necessary, and pressure should be applied, if possible, over the bleeding spot. The actual cautery has been successfully employed. The local application of calcium chloride has

been suggested. Adrenalin is not as a rule of much value in such cases. The intravenous injection of fresh horse serum (10 to 20 c.c.), repeated if necessary, has been strongly recommended. Potassium iodide or calcium lactate may be administered to bleeders in the hope that one or other of these drugs may lessen the tendency to hæmorrhage.

HÆMOPTYSIS.—In cardiac disease this is often a beneficial symptom, as it relieves the pressure throughout the vascular system. In other cases active treatment is usually called for. This consists in keeping the patient absolutely at rest in bed in the recumbent position, with the head low. He should have a hypodermic injection of morphia (gr. $\frac{1}{4}$) with atropine (gr. $\frac{1}{100}$). To relieve the thirst sips of iced water may be allowed. The patient must be enjoined not to speak, and he should endeavour to restrain the cough as much as possible. No special advantage is gained from the administration of special hæmostatics such as ergot, but in tuberculous cases there is often considerable benefit derived from the use of 5- or 10-minim capsules of ol. terebinthinæ. All food ought to be withheld for some hours, and then only iced milk should be allowed for the first few days. The bowels should be regulated by saline aperients. The room must be kept well aired and as cool as possible.

HÆMORRHOIDS, EXTERNAL.—These are very liable to attacks of acute inflammation. To prevent this, constipation must be avoided and the parts bathed night and morning with cold water. Cleanliness after defæcation is of very great importance, and the anal toilet is a matter which should receive more attention than it usually does. If the hæmorrhoids become inflamed the patient should rest in bed, have a mild aperient, and hot lead fomentations. A soothing and astringent application is ung. gallæ ē. opio. Hæmorrhoids are frequently associated with pruritus, which must receive appropriate treatment.

HÆMORRHOIDS, INTERNAL.—The first requirement is to correct constipation. When this has been done, and a simple diet ordered, then other measures may be adopted. A useful method of treatment is to apply ung. hamamelidis, which can be readily introduced into the rectum by means of the forefinger. Suppositories containing 5 grains of the extract of hamamelis are also of great value. Anusol suppositories have also been highly recommended, as they are not only astringent, but disinfectant as well. Warm enemata, containing a small teaspoonful of alum to the pint, may be tried.

In all cases of hæmorrhoids the patient should have frequent sitz baths, and must avoid a sedentary life. The diet should be plain and consist only of the most easily digested food. Alcohol is to be forbidden. By the avoidance of constipation and attention to cleanliness much may be done to prevent and to relieve complications.

In all cases when the patient complains of "bleeding piles" make sure that he is not suffering from rectal cancer by making a careful local examination.

HAY FEVER.—Any co-existing nasal affection should be attended to. Suprarenal extract and cocaine are valuable remedies, but they only afford temporary relief. The use of a nasal spray of adrenalin, combined with the inhalation of a 4 per cent. menthol-chloroform solution, has been recommended. Early and tonic treatment often gives good results, especially a mixture of strychnine, arsenic, iron and quinine, when given six weeks before the expected onset of symptoms. Ten-grain doses of potassii citras given every few hours, with a brisk calomel purge and a hot foot-bath, may be tried. A spray of 1 per cent. perhydrol has been found highly efficacious. This should be applied to the nasal mucous membrane daily. Pollantin and graminol, two specially prepared sera, are not to be relied on. In very severe types of the disease morphia may be necessary, while in

the asthmatic form belladonna, valerianates, and bromides must be prescribed.

HEADACHE.—The worst form of treatment is to prescribe an analgesic. This should never be done without first attempting to discover the cause of the pain, which after all is only a symptom of some more important underlying condition. In women headaches are often due to anæmia, constipation, or indigestion. An aperient and a course of iron will, in such cases, afford marked relief. Sometimes headache is present at the commencement or during the course of infectious diseases, *e.g.*, influenza and smallpox. Then, again, it may be due to syphilis, rheumatism, or gout, and in such cases relief follows the administration of the specific remedies for these diseases.

Nasal and throat affections, such as polypi and adenoids, as well as errors of refraction, may be a source of headaches, calling for special treatment. Dental caries is sometimes a fruitful source of intractable headache. Headache is a common symptom in renal disease, and may be the first indication of uræmia. In cerebral tumours headache often forms one of the most prominent symptoms. In cases of arteriosclerosis headache is not at all uncommon, while headache associated with vertigo is sometimes a warning signal of an approaching attack of cerebral hæmorrhage. Insufficient ventilation and certain climatic conditions readily induce headache. A special variety of headache is migraine, which in its aggravated type is very closely allied to *petit mal*.

Having discovered the cause, the appropriate treatment will necessarily follow. Local applications of menthol to the head may afford temporary relief. A smart purge of calomel followed by a saline is generally beneficial. Rest in a darkened room may be necessary. In cases of migraine sod. bromid. (grs. xv), repeated in four hours, often does good. In all cases of headache it is essential that the gastro-intestinal tract should be

attended to. Constipation must be avoided, and a simple dietary ordered. The pernicious habit of taking phenacetin or other tablets should be discouraged, as they only do harm.

HEART, DISEASES OF. Congenital Affections.—The life of the patient must be very carefully regulated. He should be kept free from excitement of every kind. The diet must be nourishing, but of an easily-digested character. Warm clothing is necessary, and the patient should go early to bed. Those who can afford it should be sent to a warm climate in winter and spring. Cardiac tonics are but seldom of value, but diffusible stimulants may occasionally be prescribed. Attacks of bronchitis are to be specially guarded against. Attacks of dyspnoea are best relieved by the use of warm baths and free purgation.

Endocarditis, Acute Simple.—The patient must be kept at absolute rest in bed on very light diet. If the condition is of rheumatic origin salicylates may be given, but the dose ought to be kept within bounds, as they are somewhat apt to depress the heart. The drugs which are most beneficial are digitalis, strophanthus, and strychnine. There is usually a good deal of anæmia present in such cases, and therefore a pill of ferr. sulph. exsicc. (grs. iij) and acid. arsenios. (gr. $\frac{1}{60}$) is often highly beneficial.

Endocarditis, Malignant.—The patient should be kept perfectly quiet in bed. The diet must be very light. Alcohol in the form of brandy or champagne is necessary, and diffusible stimulants such as spt. ammon. arom. and spt. ætheris may be ordered. Strychnine given hypodermically is also beneficial. The sulphocarbolates are absolutely valueless. Vaccine treatment may be tried. It is better to use an autogenous vaccine in every case.

Failure of Compensation.—Rest is the most essential element in the treatment of heart failure. The patient must be kept in bed until the acute symptoms have entirely passed off. Mental excitement and worry are to

be specially avoided. Sleep may be encouraged by hot drinks, or the administration of hypnotics, such as trional (grs. x) or chloralamide (grs. xv) given in cachet, but never in tablet form under any circumstances. As a rule it is advisable to keep the patient at rest until the pulse has become fairly slow and regular. The application of an ice-bag over the heart has often a markedly beneficial effect, but care must be taken lest it produce collapse.

The diet is of very great importance. It must be very light and at the same time sufficiently sustaining. Milk, eggs, custards, and milk puddings, fish and chicken finely minced, should form the staple articles of diet. The amount of fluid should be limited to about three, or at most four, pints a day. A little brandy, whisky, or good burgundy may be allowed in some cases; large quantities are, of course, highly injurious. In many cases tea and coffee are better withheld altogether, while tobacco should not be allowed. The bowels must be kept freely open. Calomel, followed by a saline, is one of the best purgatives we possess in such cases. All straining at stool is to be avoided, so that an easy movement of the bowels is always to be aimed at. This may be attained by the administration of pulv. glycyrrhiz. co. at bedtime. Small doses (grs. xx) of pulv. jalap. co. are also useful.

Venesection may be resorted to in cases of heart failure showing marked cyanosis, dyspnoea, and restlessness. The removal of a half to two pints of blood often brings about intense relief in such cases. The median cephalic vein is usually selected for this purpose.

Exercises are sometimes employed to strengthen the action of the heart in cases of failing compensation. The most generally useful of all are those known as passive movements. These consist in movements of the limbs made by the nurse and have the effect of increasing the lymph-flow as well as aiding in the absorption of any oedema which may be present. Resistance exercises may be also tried. They are really the same as the

passive movements just referred to, with the difference that the patient carries them out himself, while the nurse offers slight resistance. It is essential that the exercises should be performed slowly, and must be stopped should cyanosis, dyspnœa, palpitation, or other untoward symptom be developed.

Walking exercise is usually an excellent thing for the patient, but it must be carefully regulated to individual requirements and capacity. Graduated hill-climbing treatment is serviceable during convalescence. It consists in very carefully graduated walks along sloping paths in the mountains. When combined with Nauheim bath treatment these various exercises have an added beneficial effect in improving the condition of the heart muscle.

The various drugs which are of service in cases of heart failure are referred to in the following section.

Symptomatic Treatment in Heart Disease.—**ASCITES.**—Relief may sometimes be obtained by the use of purgatives and diuretics. Magnes. sulph. (℥ss), pulv. jalap. co. (grs. 30 to 60), and elaterium (gr. $\frac{1}{4}$) in pill are the best hydragogue cathartics at our command. As diuretics, a mixture of pot. acetat. (grs. xv to xx), with infus. digitalis, or theobrominæ et sod. salicyl. (grs. x) may be ordered. When drug treatment fails, tapping by means of Southey's tubes must be resorted to. The patient for this operation should first empty the bladder, and be in a semi-recumbent position. With strict aseptic precautions, a fine Southey's trocar is plunged in midway between the umbilicus and symphysis pubis. The fluid drains away slowly through the rubber tubing which is attached to the cannula.

COUGH.—This is usually the result of some failure of the pulmonary compensation, and may be associated with bronchitis or pulmonary œdema. Diffusible stimulants, such as ammon. carb., together with strophanthus or digitalis, usually afford marked relief. Sometimes, however, it is preferable to give a sedative such as tinct. camph. co.

DIGESTIVE DISORDERS.—Great care must always be taken in heart cases not to overload the stomach or to produce flatulence. When digestive disturbances are complained of, besides giving cardiac tonics such as strophanthus, we must enjoin a diet consisting largely of milk and eggs, avoiding tea, coffee, and red meat. The administration of soda and rhubarb powders frequently does good in such cases. Sometimes jaundice is present as a symptom of failing compensation, but this is quickly remedied when the compensation is restored by suitable treatment.

DYSPNŒA.—This may be due to pulmonary œdema, and if so should be treated by the administration of strophanthin hypodermically, the inhalation of amyl nitrite and the application of dry cupping glasses to the bases of the lungs. Apart from this, cardiac dyspnœa, if paroxysmal, is often benefited by the administration of morphia, which, however, must be kept entirely in the physician's own hands. Strychnine is also of value here, especially when given hypodermically. Venesection is to be recommended in desperate cases.

HÆMOPTYSIS.—As this usually relieves the pulmonary engorgement, it is beneficial rather than otherwise. Absolute rest is very essential here, and every measure should be adopted which will quiet the circulation (such as a hypodermic injection of morphia) and relieve the pulmonary engorgement.

HYDROTHORAX.—The treatment here consists in immediate removal of the fluid by means of an aspirator. The operation, however, demands the greatest care, as sudden death may result. It is perhaps well to stimulate the patient with brandy, and, should collapse threaten, to inject a solution of adrenalin chloride hypodermically.

INSOMNIA.—Sleep is very important in cases of heart disease. A warm bath, a hot foot-bottle, and warm drinks, *e.g.*, a glass of warm milk with a tablespoonful of whisky in it, may be tried. Failing these, drugs must be resorted to. Best of all, perhaps, is trional (grs. x), or chloralamide (grs. xv). Paraldehyde (ʒj) is also some-

times beneficial. Ammon. brom. (grs. xx) is also occasionally satisfactory in producing sleep. These drugs, however, should be reserved for occasional use, and must on no account be given habitually or in tablet form.

OEDEMA OF THE EXTREMITIES.—This is often considerably relieved by rest in bed, and the administration of strophanthus or digitalis. Diuretics such as theobrominæ et sod. salicyl. and pot. acetates may also be tried. Cathartics, such as magnes. sulph. and pulv. jalap. co., are also efficacious. Failing these the fluid may be drained away by means of Southey's tubes.

OEDEMA OF THE LUNGS.—Speedy relief is obtained by the application of cupping glasses to the bases of the lungs in such cases, and the administration of pulv. jalap. co. (grs. 40). At the same time cardiac tonics, such as strophanthus, digitalis, or caffeine, should be ordered.

PALPITATION.—An ice-bag over the heart often relieves this distressing symptom. Flatulence is often the exciting cause, and this indicates careful attention to the patient's diet. The administration of spt. ammon. arom. (℥30) with spt. ætheris (℥xx) every two or three hours is very beneficial in some cases. Bromides may have to be given, the ammonium salt on the whole being preferred.

PRÆCORDIAL PAIN.—When of a true anginous nature its appropriate treatment will be found under that heading. Otherwise mustard may be applied, and a hypodermic injection of morphia administered. Even when not of a true anginous character the pain may be relieved by giving one of the nitrites.

RENAL COMPLICATIONS.—These are, as a rule, diminished secretion of urine and albuminuria. These symptoms usually yield to treatment by cardiac tonics and diuretics. Sometimes diminished urinary secretion results from the injudicious use of digitalis, and this fact should be kept in mind. It is important to determine whether the albuminuria is due to primary renal disease or to cardiac disease with secondary renal

changes. The history of the patient's illness will usually be sufficient to determine this, together with a careful examination of the circulatory and urinary systems.

Fatty Degeneration.—Cardiac tonics must be given with care in this condition, as the heart is very apt to react unsatisfactorily to their administration in such cases. Rest is most essential, but a moderate amount of carefully regulated exercise is often beneficial. Iron, strychnine, and arsenic may be given cautiously. Treatment by means of graduated hill-climbing may sometimes be recommended with advantage.

Myocarditis, Acute.—Absolute rest in bed must be enjoined. The pulse-rate should be the guide as to when the patient may be allowed to get up. He must be kept recumbent until the latter is quite slow. An ice-bag over the præcordial region is very useful, and in such cases the diet should be very light and easily digested. An easy action of the bowels should be maintained by saline aperients. Strophanthus and strychnine are sometimes necessary, but great care must be exercised in their use as they may do harm, as may also digitalis, if given by mere rule of thumb.

Myocarditis, Chronic.—The treatment of this condition is really that of the various valvular lesions as detailed below. When heart failure sets in the patient should be kept in bed, and put on a light diet. Free purgation is usually requisite. Strophanthus or digitalis must be ordered. Later, suitable exercises and Nauheim baths may be prescribed. In cases of acute dilatation the nitrites and venesection may be kept in mind.

Valvular Diseases.—**MITRAL INCOMPETENCE.**—In the acute stage great attention should be paid to rest in bed. Digitalis may or may not be required, but strychnine is often very beneficial. The life of the patient as to work, exercise, diet, clothing, and hours of sleep must be very carefully regulated. Later on, when the condition has got beyond the acute stage and

the valvular lesion has become chronic, treatment must be largely symptomatic, as already laid down under failure of compensation. Absolute rest in bed is always necessary in the first instance. The diet must be very light. Digitalis or strophanthus will be necessary. The administration of a saline aperient is indicated. Sleep should be secured, and the patient must be secured against mental worry. Venesection may be called for in cases presenting marked dilatation of the right chambers of the heart. Otherwise, symptoms such as dyspnœa, œdema, and cough should be treated on the lines already laid down. Baths and exercises are beneficial when compensation has been restored.

MITRAL STENOSIS.—The treatment of this condition is much the same as that of mitral incompetence. Even greater care, however, is necessary here to avoid any source of cardiac strain. The nitrites are of special value when there is failure of pulmonary compensation, and when this has become re-established, exercises and the Nauheim bath may be prescribed. If the patient is at all anæmic it is well to order a mild form of iron, such as ferr. et ammon. citr., either with or without liquor arsenicalis. Digitalis or strophanthus is indicated here, but neither should be given unless there is evidence of dilatation of the right side of the heart. Such dilatation is to be specially guarded against, and should it set in the operation of venesection may have to be considered, more especially if œdema of the lungs is found present.

AORTIC INCOMPETENCE.—Great care must be taken to regulate the patient's life. Alcohol and tobacco are usually contra-indicated. Nauheim baths are sometimes useful in reducing the blood-pressure in cases associated with arterio-sclerosis. Cardiac dilatation is to be strenuously guarded against. Should the left ventricle become dilated, rest in bed must be enjoined, and light diet ordered. Free purgation must be maintained, and as soon as the patient is able he should have a course of passive movements, followed later by the

Nauheim bath treatment. Arsenic and strychnine are sometimes of value ; the use of digitalis or of strophanthus should be reserved for cases in which there is secondary incompetence of the mitral valve, that is, in the later stages. The nitrite group of remedies are of special value, either liq. trinitrini (℥ $\frac{1}{2}$ to ij), or sod. nitrit. (gr. j). Should there arise an attack of severe palpitation or of angina, then an inhalation of amyl nitrite may afford relief.

When the ventricle begins to dilate the treatment should be much the same as that recommended for mitral regurgitation. Digitalis may now be given with comparative safety. Hydrargyrum, cathartics, diuretics, and nitrites are all of the greatest possible service at this stage.

AORTIC STENOSIS.—All that is necessary here, in the early stage, is to enjoin a quiet life and suitable exercise, with attention to diet and the avoidance of constipation. The blood-pressure should, when showing a tendency to rise, be lowered by means of the nitrites. The latter are also useful when angina is a marked feature. If dilatation threatens, or is actually present, purgation and the other measures referred to under failure of compensation must be resorted to. If there is evidence of acute heart failure venesection may prove of very great value. Sometimes arsenic is beneficial in the early stage before dilatation has occurred, as it acts as a mild cardiac tonic.

HEMIPLEGIA.—The indications for treatment are : (1) to guard against future attacks ; (2) to improve the condition of the affected muscles and joints ; (3) to improve the patient's general condition. Taking the last indication first, we may administer tonics such as tinct. nuc. vom., and enjoin fresh air and exercise out of doors. In order to guard against future attacks the blood-pressure should be carefully estimated from time to time, and if need be lowered by means of liq. trinitrini. A course of pot. iodid. and free purgation are often beneficial, and the diet should be chiefly one of milk and

white food. Alcohol and tobacco must be prohibited. Improvement in the condition of the affected muscles and joints is only possible if treatment is promptly and properly carried out. Early passive movements are of the utmost importance, while faulty positions of the affected limbs should be prevented. The nutrition of the muscles may be greatly improved by massage and electricity. The latter, however, is very apt to be overdone. Nothing short of vigorous massage and electrical stimulation will satisfy the professional nurse, but it is absolutely essential that the massage should be gentle and the electrical current comparatively weak, if they are to benefit the patient instead of working harm. The patient, moreover, should be taught to use the affected limbs as far as possible. It is wonderful how much re-education can accomplish in such cases.

HERPES ZOSTER.—The patient is often run down in health, and therefore requires tonic treatment. A mixture of ferr. et quin. citr. and inf. calumbæ is very suitable. For the eruption a dusting powder of equal parts of zinc. oxid. and acid. boric. is all that is necessary, beyond covering the parts with cotton-wool, held in position by means of a bandage. Painting with collodion is often recommended, but one trial of this is sufficient to convince the sceptical as to the intolerable discomfort which this method of treatment produces. When the condition is improving, any mild antiseptic ointment may be ordered. A good one is the following :—

R	Acid. Salicylic.	.	.	.	grs. v.
	Hydrarg. Ammon.	.	.	.	grs. v.
	Paraffin. Mollis	.	.	.	ʒj.
					M. ut Ft. Ung.

Sig. To be applied night and morning.

A form of treatment suggested a few years ago is the application of absolute alcohol, which is said to relieve the pain and bring about rapid resolution of the vesicles. Arsenic given internally is also stated to have beneficial effects in this disease.

It is well to remember that severe intractable neuralgia is apt to follow an attack of herpes zoster, especially in elderly patients. Its treatment is a very difficult matter. It is doubtful if any remedy has much effect. Change of air and tonic treatment with careful dieting are better than drugs as a rule. The use of morphia is to be strongly deprecated.

Herpes sometimes occurs on the lips in cases of ordinary cold, of influenza, or of pneumonia. The treatment consists in applying some mild antiseptic ointment such as the one referred to above, and attending to the condition with which it is associated.

HICCUGH.—The treatment in mild cases is a comparatively simple matter. The patient should be instructed to hold the breath while counting slowly up to twenty, or to drink a glass of cold water. In severe cases the physician's ingenuity will often be taxed to the utmost. The cause must be sought for, and if possible removed. If there is flatulent distension of the gastrointestinal tract an enema of olive oil and turpentine, combined with the internal administration of ol. terebinth. ($\mathbb{M}x$), may afford relief. An emetic of mustard and water has been successfully employed. Mustard applied to the epigastric region is sometimes helpful. Ten minims each of spt. ætheris and spt. chloroformi may be tried. Inhalations of amyl nitris have also been recommended. A hypodermic injection of morphia with strychnine is sometimes curative. Sooner or later the heart must be stimulated, and this is best achieved by hypodermic injections of strophanthin alternating with strychnine. Washing out the stomach is stated to be a useful method of treating severe cases.

HYDROCEPHALUS.—Beyond the administration of anti-syphilitic remedies in cases known or suspected to be of syphilitic origin, no medicinal treatment is of any avail. The surgical treatment of this condition is not very satisfactory. Subperitoneal drainage has been carried out, as have also tapping of the ventricles and lumbar puncture.

HYDROTHORAX.—Treatment consists in stimulating the heart and circulation, and in attempting to remove the fluid by establishing intestinal or renal drainage. This may be achieved by giving the patient pulv. jalap. co. (grs. 30 to 60) or pot. acet. (grs. xx). If these measures fail it is necessary to draw off the fluid slowly by means of an aspirator.

HYPERIDROSIS.—The internal administration of tonics, especially iron and quinine, and the avoidance of stimulants, alcoholic and otherwise, are indicated. Locally, sponging with toilet vinegar and water is beneficial. When the condition specially affects the feet a bath of permanganate of potassium, followed by the application of a dusting powder containing 5 per cent. salicylic acid should be tried. The stockings should be frequently changed and washed with coal-tar soap.

Excessive sweating of the hands occurs in nervous and dyspeptic patients. The condition is best treated by tonics and attention to the diet. The use of a soap containing salicylic acid and ichthyol is often found to be very beneficial in such cases.

HYSTERIA.—Cases of this disease rarely progress satisfactorily when treated at home, unless they can be put under the charge of a very competent nurse and kept strictly isolated. In severe cases rest in bed, combined with over-feeding and judicious massage, followed by open air treatment, is to be strongly recommended. The patient should be made to take abundance of milk, eggs, and fat foods. The bowels must be carefully regulated, and any casual factor remedied. As regards drugs, iron is often indicated on account of the associated anæmia, while in many cases bromides and asafoetida or valerian are given with advantage. These are specially useful in cases which show a tendency to hystero-epileptic seizures. Cases suffering from aphonia, dysphagia or paralysis of the limbs may often be completely cured by suggestion or by the application of the Faradic current. Needless to say, alcohol and especially medicated wines are to be absolutely forbidden. These patients are very

impressionable, and readily form drug habits which are more easily acquired than broken off.

ICHTHYOSIS.—Warm baths, combined with daily inunctions of lanolin, constitute the only satisfactory method of treatment. The administration of thyroid. sicc. (grs. ii) thrice daily has sometimes proved very efficacious. Inunctions of olive oil after a warm bath, and a diet rich in fat may also be tried.

IMPETIGO CONTAGIOSA.—This condition is very frequently due to pediculosis capitis. Its treatment, therefore, consists in getting rid of the cause at the very outset. When this has been done the crusts may be removed by soaking them with olive oil, not by starch poultices, which only serve as a suitable nidus for the growth of germs. The application of any mild anti-septic ointment such as the following will suffice :—

R	Ung. Hydrarg. Ammon.	.	.	3i.
	Paraffin. Mollis	.	.	3vij.
				M. Ft. Ung.

Sig. To be applied night and morning.

INCONTINENCE OF URINE.—Its treatment when it occurs in children will be found under the heading **ENURESIS**. In the case of adults the cause, such as calculus or enlarged prostate, must be treated. The catheter is necessary in cases due to over-distension of the urinary bladder. In women it may be associated with some gynæcological condition which must be suitably treated ; or it may be of purely nervous origin. In the latter case the incontinence will be benefited by tonics and the administration of tinct hyoscyami (℞xx t.d.s.). Incontinence of urine which occurs in epileptics during sleep demands the exhibition of bromides.

INFANTILE PARALYSIS.—(See **POLIOMYELITIS ANTERIOR ACUTA**.)

INFLUENZA.—The treatment, even of a mild attack, should always be undertaken seriously. The patient must be put to bed, and kept there until his pulse and

general condition warrant permission being given to go about. Neglect of this precaution has frequently been the cause of disastrous consequences. He should also be isolated as far as possible, and after recovery it is advisable to secure thorough disinfection of the sick-room as well as of the patient's clothing. At first the patient should be given only milk and beef juice. Later on his appetite should be tempted by easily digested foods. The mouth must be washed out daily, as this simple measure alone often leads to an improvement in a patient's appetite. In practically every case the prominent symptom demanding relief is pain. For this purpose a prescription of phenacetin (grs. x) and *caffeinæ citras* (grs. v) thrice daily usually suffices. At times a mixture such as the following is also very beneficial :—

R	Liq. Ammon. Acet.	.	.	.	3vj.
	Pot. Citratis	.	.	.	3ij.
	Aq. Destill. ad	.	.	.	3vj.
	S. et M. ut Ft. Mist.				

Sig. A tablespoonful to be taken in water every four hours.

In severe types of the disease stimulants are usually necessary. If heart or respiration fail, strychnine may be administered hypodermically. Otherwise, spt. ammon. arom. or spt. ætheris may be given. Alcohol will generally be ordered with advantage for elderly and feeble patients. Brandy and champagne form excellent stimulants in such cases. If insomnia is a feature of the disease it should be treated promptly. Trional (grs. xv) usually succeeds in producing sleep which is pleasant and refreshing, but it should not be given in tablet form.

If cough is troublesome the patient may be given pastilles of glyceriné and black currant to suck, or he may inhale tinct. benzoin. co. Should broncho-pneumonia develop during an attack of influenza mustard poultices may be applied to the chest, and the

patient stimulated by ammon. carb., hypodermic injections of strychnine, and the administration of alcohol.

Sometimes vomiting and diarrhoea are prominent features. In such cases mustard may be applied over the epigastric region, and bismuth with acid. hydrocyan. dil. given internally. The diarrhoea can usually be kept in check by small doses of liq. morphin. hydrochlor. (M_v to x). The diet in such cases must consist of boiled milk, or of sherry whey if milk is not retained. The vaccine treatment of this disease is a therapeutic error, and has no scientific foundation. Until we know definitely the causal organism we naturally cannot seriously consider the use of vaccines, either as prophylactic or as curative agents.

During convalescence tonic treatment, by drugs and diet, should be employed. The heart and chest must be examined from time to time. The frequency of tuberculosis, cardiac affections, and mental disease after an attack of influenza should be carefully borne in mind, and as a prophylactic measure the patient should have a prolonged rest, both bodily and mental, before resuming his ordinary vocation. A change of air and scene will prove invaluable.

INSOMNIA.—This distressing complaint unfortunately is often a source of drug abuse, especially of the tablet form of medication. In ordering medicines for patients suffering from insomnia two rules should, therefore, be kept in view :—

(1) Always write across the prescription the words, "not to be repeated."

(2) Never order medicines in tablet form.

The cause should be sought for in every case, and if possible removed. Insomnia may be due to pain, irritating cough, pruritus, pediculosis, or gastrointestinal discomfort from late meals; on the other hand it may be due to overwork or worry. Again, in elderly people it may result from prostatic trouble. In many cases cold feet are the cause.

Drugs should never be prescribed in the first instance.

Regular hours should be enjoined, and the diet as well as the gastro-intestinal tract attended to in every case. A hot bath before retiring and a hot-water bottle in the bed are two measures which sometimes succeed. Change of air and scene are often beneficial, especially in cases due to overwork and mental worry. In all cases open air exercise should be encouraged. A hot drink taken after the patient is in bed may be tried.

If drug treatment becomes necessary the safest remedy, perhaps, is sod. brom. (grs. 20) ; but as this is apt to cause considerable depression its effect in this respect should be carefully observed. Trional (grs. x) and barbitone (grs. vij to x) are good hypnotics. The latter is often credited with being the cause of fatal poisoning, but all the cases on record had taken the drug in tablet form, a habit which is always fraught with dangerous and disastrous results. In neurasthenics a hypodermic injection of aq. destill. is sometimes wonderfully efficacious when everything else has failed. Opium preparations are better avoided altogether, except in cases where the insomnia is due to severe pain, as in cancer.

Massage, electricity, and hydrotherapy are sometimes advantageous in suitable cases, and especially in those which originate in mental or physical breakdown.

INTESTINAL OBSTRUCTION.—Unless this is the result of fæcal impaction medical treatment is not of any avail. If due to fæcal accumulation the patient should be laid on his side, and the obstruction removed by means of the forefinger. He should then be given an enema consisting of ol. olivæ (ʒij) and ol. ricini (ʒj). A few hours later a large soap and water enema should be administered. Great care must be taken to secure a daily action of the bowels afterwards, as the condition is very apt to recur.

In cases of intestinal obstruction due to other causes no time should be lost in securing the assistance of a surgeon and capable anæsthetist. If no immediate operation is necessary hot fomentations may be applied

to the abdomen and a rectal enema of warm olive oil administered. The patient should be fed entirely per rectum, as mouth-feeding only increases the tendency to vomiting. With the surgeon's sanction a hypodermic injection of morphia may be given to relieve the intense pain.

INTESTINAL PARASITES. — Tapeworm. — The patient should be kept for at least three days on strictly milk diet. On the third day he should have a saline purge, and no food should be given after 6 P.M. Early next morning he is given extr. filicis liq. (3j), a suitable prescription for which is as follows :—

R	Extr. Filicis Liq.	.	.	.	3j.
	Syr. Simplicis				
	Mucil. Acaciæ	.	.	.	āā 3ss.
	Aq. Cinnam. ad	.	.	.	3ij.
					M. Ft. Haustus.

Sig. To be taken fasting.

If the bowels do not move, a saline purge should be given. On no account must castor oil be administered, as the active principle of filix mas is soluble in oil, and it might therefore be absorbed and cause serious symptoms. Other remedies are thymol, kamala, pulv. granati radicis and ol. terebinthinæ; but the extr. filicis liq. is undoubtedly one of the best and most reliable.

Round-Worms and Thread-Worms.—The treatment here consists in giving santonium (grs. ij to v) when the patient is fasting and after the intestinal tract has been emptied by means of calomel or pulv. glycyrrhiz. co. It is inexpedient to use ol. ricini as a laxative in such cases, because it favours the absorption of santoline, and may induce toxic symptoms. The patient in every case should be kept in bed during the progress of the treatment. In cases of thread-worms enemata of salt and water should be given regularly, and the patient kept from scratching the anus, as he may thereby become reinfected.

IRITIS.—If rheumatic in origin salicylates should be

given ; if syphilitic, a mixture of liq. hydrarg. perchlor. and pot. iodidi may be prescribed with advantage. In gouty cases vinum colchici may be tried ; while in tuberculous subjects ol. morrhue or even tuberculin injections may be thought of.

In all cases, from whatever cause arising, a smart calomel purge should be ordered and the patient kept in a darkened room. The diet must be of a very light and simple character. Instillations of atropine and cocaine are necessary in order to dilate the pupil. Warm boracic lotion should also be employed every two hours. The intra-ocular tension should be estimated from time to time, as glaucoma has to be kept in mind. In order to relieve the pain, which is often very acute, counter-irritation in the form of a fly-blister over the temple may be resorted to. Leeches are also very efficacious.

JAUNDICE.—Attention in every instance should be directed to removal of the causal conditions. In the catarrhal form medical treatment is of the utmost importance. The diet must be attended to. This should consist at first of milk and Vichy water. Later, milk puddings and fish with dry toast may be allowed. Fats are to be carefully avoided, as is also alcohol in every form. The administration of sod. bicarb. (grs. x) with tr. rhei. co. (℥v) is useful. Five-grain doses of hydrarg. subchlor. may also be given at bedtime, followed by a seidlitz powder in the morning. In many cases marked benefit follows the use of rectal enemata of cold water.

Sometimes a cholagogue pill is to be preferred, such as :

R	Podophyllin	.	.	.	gr. ss.
	Extr. Euonymi Sicci	.	.	.	gr. j.
	Hydrarg. Subchlor.	.	.	.	gr. ij.
	M. ut Ft. Pil. Mitte tales vi.				
	Sig. One to be taken at bedtime.				

The ordinary pil. hydrarg. of the B.P. is also a favourite with many, especially in combination with the pil. colocynth. co.

If itching is a troublesome symptom, the skin may be sponged over with toilet vinegar and water. During convalescence an alkaline or acid bitter tonic is indicated.

KIDNEY, MOVABLE.—As a rule the less said about this condition to the patient the better. The treatment consists in ordering a suitable belt which will support the abdominal walls, in combating the neurasthenia, and in endeavouring to fatten the patient. Operative measures are but rarely called for.

LARYNGEAL STRIDOR.—This is a congenital condition which usually increases during the first two or three months, and then gradually begins to pass off. As a rule it has no effect upon the health of the infant. Cyanosis may possibly develop. Treatment consists in avoiding excitement, which always tends to aggravate the condition. Beyond attention to the general condition of the patient, suitable feeding, and guarding against chills, no special measures need be adopted, as the condition almost certainly disappears in time, although fatal cases have been recorded. If dyspnoea and cyanosis come on, tracheotomy will be necessary.

LARYNGISMUS STRIDULUS.—This condition is usually associated with rickets, and occurs during the period of infancy. It forms one of the mildest varieties of convulsions in early life. During the attack a hot bath should be given, and a cold sponge applied to the region of the neck. After the seizure has passed off the diet of the patient must be attended to. Fresh air is also essential. Cod-liver oil and cold douching will bring about complete cure within a very short time.

LARYNGITIS, ACUTE.—Rest is most essential to successful treatment. All use of the voice must be prohibited, while in severe cases the patient must remain in bed in a somewhat moist atmosphere and equable temperature. The diet should consist of milk, beef tea, and milk foods. A dose of calomel is also indicated. Cold compresses applied to the throat are very beneficial.

If the patient is feverish and the cough troublesome, a very useful form of prescription is :—

R	Liq. Ammon. Acet.	.	.	.	3vj.
	Tinct. Camph. Co.				
	Syr. Tolut.	.	.	āā	3ss.
	Aq. Camphor. ad.	.	.	.	3vj.
				M. ut	Ft. Mist.

Sig. A tablespoonful to be taken every four hours in water.

Inhalations of tinct. benzoin. co. may also be ordered.

LARYNGITIS, CHRONIC.—The voice must be rested. An astringent application should be applied locally. In the more chronic cases a solution of protargol will be found most useful, although some authorities prefer chloride of zinc (grs. v or x to the oz.). In addition, inhalations of ol. eucalypti, ol. terebinthinæ, or creosotum may be tried. Any nasal or pharyngeal condition should receive attention. The diet must be carefully regulated, and ought to be of the simplest possible kind, all condiments, pickles and the like being avoided. Tobacco and alcohol must be absolutely forbidden. The patient should have a daily bath and plenty of open-air exercise if the weather permits. If he is gouty or rheumatic appropriate treatment must be given.

LARYNGITIS, SYPHILITIC.—Antisyphilitic treatment should be commenced at once. Hydrarg. c. creta (gr. j t.d.s.) or liq. hydrarg. perchlor. (3j t.d.s.) may be ordered. In many cases the latter may be combined advantageously with pot. iodid. The larynx may be treated locally with protargol solution. The patient must rest the voice, and avoid alcohol, tobacco, and highly seasoned foods.

LARYNGITIS, TUBERCULOUS. — The patient should be directed to rest the voice as much as possible. The larynx may be painted with a weak solution of protargol, and creosote (℥iij to x) given internally. The patient will also benefit by the open air treatment *in a suitable locality*, and the other measures as detailed in

the treatment of pulmonary tuberculosis (*q.v.*). In the later stages, when ulceration has taken place, local applications of lactic acid are beneficial. These are made after a preliminary treatment with a 20 per cent. solution of cocaine. The strength of lactic acid should be 20 per cent. to begin with, but may be increased up to 50 or even 80 per cent. if necessary. If dysphagia is a marked symptom, cocaine lozenges may be given to suck, but as a rule these afford very little relief.

LEAD PARALYSIS.—(See PLUMBISM.)

LEPROSY.—The most satisfactory treatment consists in toning up the general health by nourishing food and in the administration of cod-liver oil with iron. The patient is then ordered *sod. salicyl.* (grs. xv t.d.s.). This treatment is kept up for several months. The local application of chaulmoogra oil, combined with its internal administration, is also stated to be beneficial. The most recent treatment consists in injecting nastin, which is really an extract from the *lepra streptothrix*. Numerous excellent results have been recorded, but the most recent reports seem to throw discredit on this method of treatment.

LEUCODERMA.—The treatment of this condition is very unsatisfactory and discouraging. Hypodermic injections of pilocarpin may be tried, while applications of pure carbolic acid are credited with excellent results in some cases. The internal administration of arsenic, although recommended, is not likely to prove beneficial.

LEUCORRHOEA.—In the simpler cases of this affection the administration of tonics, and copious hot douches containing boracic acid or alum, suffice to bring about a complete cure. If, in spite of such treatment, the condition progresses, a local examination must be made, and appropriate treatment of the causal factor undertaken.

LEUKÆMIA.—This most intractable disease demands for its treatment rest, fresh air, and nourishing but easily assimilated food. The only medicinal agent which is at all efficacious is the liquor arsenicalis. It is

well to commence with a dose of 3 minims and gradually increase this up to 15 minims thrice daily; but its administration should always be stopped from time to time, as it is very apt to produce gastro-intestinal irritation, especially when given in full doses. Recently benzol has been credited with some success in the treatment of this disease. The use of the Röntgen rays has also been followed by very brilliant results in some instances, as have oxygen inhalations. If the X-ray treatment is decided on, one or at most two séances per week will suffice. The most recent surgical measure is to excise the spleen after its size has been considerably decreased by means of radium.

LICHEN PLANUS.—The treatment of this condition, which is sometimes very persistent and chronic in its course, consists in the local application of an ointment containing liq. carbonis deterg. (3j to the oz.), and the internal administration of small doses of calomel. In chronic cases arsenic is sometimes more beneficial.

LIVER, CIRRHOSIS OF.—(See CIRRHOSIS OF LIVER.)

LOCOMOTOR ATAXY.—In the very early stage a sea voyage or a prolonged holiday at the seaside may be advised. In all cases alcohol is to be avoided, and the patient must lead a well-regulated life, free from worry and strain of all kinds. He should also avoid exposure to cold and wet. The only remedy which does any real good is pot. iod., but it must be given in gradually increasing doses up to 60 grs. t.d.s. This remedy frequently produces marked amelioration of the patient's condition, and is usually well borne when administered in large doses. Benefit is also sometimes derived from hypodermic injections of strychnine combined with electrical treatment and Fränkel's exercises. The latter consist in definite movements carried out first with assistance, then with the aid of a stick, and finally without any help whatever. These exercises are very varied. Thus the patient practises standing on tiptoe, and with the feet separated or together. He also walks along lines drawn with chalk upon the floor. In reality

these various exercises form a course of re-education, and require for their proper performance intelligent co-operation on the part of the patient himself.

For the *lightning pains* phenazonum, acid. aceto-salicylic. and phenacetin may be tried. In cases of *crises*, gastric or otherwise, hot fomentations may be applied, and only as a last resource may a hypodermic injection of morphia be given. Where there is *cystitis* or urinary trouble the catheter must be employed, and the bladder washed out thrice a day with a weak solution of boracic acid. Small doses of the extr. ergot. liq. may be given in addition.

In all cases of this disease treatment must be undertaken with confidence and hopefulness. A great deal depends on the encouragement given to the patient by his medical attendant, as the former is very apt to tire of continually taking medicines and carrying out measures which his adviser orders in a half-hearted spirit.

LUMBAGO.—Nothing gives so much relief to this painful affection as rest in bed and the application to the loins of moist heat in the form of a large poultice of linseed and mustard. The patient should lie between blankets, and wear a flannel nightshirt. He should have a calomel purge, and 15-grain doses of sod. salicyl. are to be given every four hours. If the patient is gouty he should be ordered 5- or 10-minim doses of vin. colchici. In many cases rubbing the back with lin. terebinth. does good. If the pain is very intense pulv. ipec. co. (grs, xv) may be given for a single dose. In order to avoid future attacks the patient ought to wear woollen clothing next the skin throughout the year. If the condition tends to recur with considerable frequency a course of Turkish or of mud baths may be tried, provided there is no serious cardiac or other trouble present. A visit to one of the spas, especially Buxton, Bath, or Droitwich, is to be recommended in cases which are regarded as chronic.

LUNG, GANGRENE OF.—In the first place the patient's strength must be supported. He should be

kept in bed, and be stimulated by means of brandy and nourishing food. Inhalations of creosote and the internal administration of this remedy will do much to diminish the foetor of the patient's breath and expectoration. Drainage of any existing cavity should be attempted by surgical means. Vaccine therapy may be tried either by means of a stock vaccine, or preferably by an auto-genous one after isolation of the causative organism from the patient's sputum.

LUNG, OEDEMA OF.—(See HEART, DISEASES OF.)

LUPUS, ERYTHEMATOSUS.—If the patient is debilitated, tonic treatment is advisable, while open-air exercise should always be recommended. He should have a tepid bath every morning, followed by a cold douche. Locally, some simple lotion such as one composed of acid. boric. ℥ij and calaminæ præpar. ℥iij with liq. calcis ℥vj is to be preferred. A 10 per cent. ichthyol lotion may also be tried. Helpful measures in obstinate cases are X-rays, radium, the high frequency current, and the Finsen light.

LUPUS VULGARIS.—This is really a local form of tuberculosis, and consequently the general treatment of the patient is of as much importance as local measures. Cod-liver oil and appropriate tonics should always be prescribed. Change of air and scene is often an important supplementary measure. The forms of local treatment recommended are numerous and varied. The best are the Röntgen rays, radium, and the Finsen light, combined with injections of tuberculin (TR.), the dose being gradually increased. The application to the patch of a plaster of salicylic acid and creosote may also be employed, but it is sometimes very painful. Surgical treatment, followed by the use of stimulating applications of carbolised glycerine, ichthyol, or β -naphthol, may be resorted to. Such operative measures as curetting with a sharp spoon and scarification are often followed by excellent results.

LYMPHADENOMA.—Beyond general measures such as fresh air, good food, and rest, the treatment of this

disease consists in giving arsenic internally and using ung. hydrarg. externally. The former should be pushed to the limit of tolerance and then stopped for some days ; the latter may be rubbed into the masses at bedtime, selection of a fresh area being made each time. X-ray treatment often proves very beneficial.

MALARIA.—During the febrile period the patient should lie in bed between blankets, and wear a woollen nightshirt. During the cold stage he should be packed round with hot water bottles and have warm drinks. During the hot stage these warm drinks ought to be continued, and care taken that the patient does not throw off the bedclothes. In the sweating stage the hot water bottles may be removed, and the patient stimulated. The body should be rubbed down with warm, dry towels and a clean nightshirt and blankets supplied.

The great remedy in all cases of malaria is quinine. It is best given, perhaps, in the form of the sulphate, but never in tablet or pill form unless the latter be crushed down before being administered. It is well to begin with a dose of 10 or even 15 grains, and then to give 5 grains every four hours. In the intermittent type of fever the remedy is best given during the afebrile period, and its administration continued until the commencement of the paroxysm. In the remittent and continuous types it should be given at regular intervals, irrespective of a fall in the temperature.

If vomiting is troublesome ice may be given to suck, and quinine injected hypodermically if oral administration is rendered impossible, but when given in this way it is very apt to produce local abscesses with considerable destruction of the skin. Arsenic is sometimes beneficial during the period of convalescence.

MALTA FEVER.—The patient should remain in bed while the febrile symptoms last. The temperature, if very high, may be reduced by tepid sponging. If vomiting is severe the patient may be put on bismuth, and have peptonised foods and beef juice. Diarrhœa is best

combated by enemata of starch and opium. Constipation must also be avoided. Neuralgic pains and effusions in the joints demand warmth, combined with rest and the application of liniment. belladonnæ. During convalescence a sea voyage is very beneficial, and the clothing should be warm.

MARASMUS.—In most cases it is necessary to keep the infant warm by wrapping it up in cotton wool. The feeding is of very great importance, and should be guided by the digestive powers of the patient. As a rule the infant should be put on a very much diluted milk mixture, or in some cases condensed milk suits very well for a time, provided breast feeding is impossible. Vomiting and diarrhœa must be very carefully guarded against. A wet nurse, if she can be obtained, may be of very great service in such cases. Infants' "foods" are to be specially avoided, as they only do harm by upsetting the digestion of the patient. Fresh air and sunshine and regular bathing followed by inunctions of olive oil are all helpful. In severe cases brandy and warm saline injections will be called for.

MEASLES.—The patient must be kept warm in bed for at least fourteen days. The sickroom should be well ventilated and kept at an equable temperature. The blinds ought to be drawn in order to lessen the irritating effect of light upon the eyes. The diet should consist largely of milk and light puddings. Great attention must be paid to the eyes, nose, and chest. The eyes should be bathed frequently with tepid water. A little vaseline inserted into the nostrils night and morning is soothing. A mild diaphoretic mixture with the addition of vin. ipecac. is most suitable. If bronchitis supervenes, the chest should be rubbed with a stimulating liniment such as liniment. terebinthinæ. If the patient has an irritating cough due to laryngitis, the air of the room ought to be kept moist by means of a bronchitis kettle.

During convalescence the chest should be examined from time to time, and any discharge from the ears ought to receive attention. The greatest care should be

taken to avoid chills during this period, and warm clothing is imperative. A course of cod-liver oil is usually indicated, and this may be supplemented by a change to the seaside.

MEASLES, GERMAN (RUBELLA).—The patient should remain in bed for a week and have a diaphoretic mixture with light diet. Complications are rare, and as a rule no further treatment is necessary.

MENIÈRE'S DISEASE.—Any constitutional condition such as rheumatism, gout, or syphilis should receive attention. The best treatment is sod. brom. in 15-grain doses three times a day. Any co-existing dyspepsia must be remedied, and constipation avoided. When acute manifestations are present it is advisable to keep the patient in bed, with an ice-bag applied to the head.

MENINGITIS.—This disease may be of one or other of the following varieties: (1) septic, including pyogenic influenzal, and pneumococcal sub-groups; (2) cerebrospinal; (3) tuberculous; (4) syphilitic. The treatment of all these varieties is somewhat similar. The sickroom should be darkened and kept cool. The patient himself should be kept absolutely quiet. Tepid sponging has often a soothing effect, and tends to promote sleep. Cold may be applied with advantage to the head. Diet must be very carefully regulated, as feeding is often a very troublesome matter. Hot baths and bromides are valuable adjuncts, and help to relieve the pains in the head. The bowels should be kept open by small doses of calomel. Lumbar puncture is sometimes of very marked value in relieving intra-cranial pressure; and the operation may be repeated every second or third day. If there is a tendency to convulsions, small doses of chloral hydras may be given either by the mouth or per rectum. Alcohol should never be given unless the patient is collapsed. If vomiting is troublesome, ice may be given to suck and mustard applied over the epigastrium, while a mixture of bismuth and dilute hydrocyanic acid may be ordered.

Other measures in special cases consist of surgical interference, the use of Flexner's serum, and mercurial inunctions. Iodide of potassium has also a reputation in cases of meningitis, but is of special value in the syphilitic form. It may be given in doses varying from 5 to 20 grains three times a day, according to the age of the patient. In the cerebro-spinal or epidemic variety counter-irritation may be applied to the spine, and often appears to do good; but the early use of Flexner's serum administered intraspinally is the best method of treatment.

MENORRHAGIA AND METRORRHAGIA.—In the majority of cases the treatment should never be commenced without having first made a thorough vaginal and bimanual examination of the patient. In young, unmarried females irregularities are often the result of anæmia, and require treatment by rest and iron. In older and especially in married women the cause may be some uterine tumour such as fibromyoma or carcinoma, or it may be the result of a former miscarriage. Extra-uterine gestation must also be kept in mind. Many cases are benefited by ergot, hot douches, saline aperients, and attention to the general health. Failing these measures surgical interference may be necessary in the shape of curetting or some more formidable operation.

MIGRAINE.—(See HEADACHE.)

MITRAL DISEASE.—(See HEART, DISEASES OF.)

MORPHINISM.—The fact that this habit is often induced by the use of this drug as a means of treatment cannot be too forcibly impressed on the minds of medical men. The latter should keep morphia and all such powerful drugs in their own hands, and never allow nurses to give hypodermic injections to patients, much less allow the latter themselves to use the needle. In cases of morphia-habit the patient must be placed under strict supervision, preferably in a suitable home. The drug ought to be withdrawn gradually, and the patient should be kept on a stimulating diet, consisting

of warm milk, meat juice, and strong soups. When the drug is withdrawn, diarrhoea and vomiting or insomnia are apt to supervene, and may be troublesome.

The method of treatment by injections of hyoscine may be tried. This consists in giving $\frac{1}{100}$ grain of hyoscine hydrobromide, followed by $\frac{1}{200}$ grain every hour or two for a few doses until the patient becomes slightly delirious. The latter dose is then continued every three hours for twenty-four or even for forty-eight hours.

As the patient improves, massage and out-of-door exercise are called for. Some useful occupation is to be strongly recommended or a lengthy sea voyage, otherwise relapse is apt to take place. Great care must be taken in treating insomnia in such cases, as the habit of taking hypnotics may be induced.

MUMPS.—In all cases the patient should be kept warm in bed on a milk diet until the swelling has subsided. The pain in the glands may be relieved by painting on lin. belladonnæ or applying hot fomentations. A calomel purge should be given at the outset. If orchitis supervenes hot fomentations with elevation of the testicles usually suffice; and if the pain is at all severe, ung. belladonnæ with adeps lanæ hydros. may be applied. In any case mumps should always be treated seriously, as it is by no means always a mild disease.

MYELITIS, ACUTE.—The patient should be kept at rest on a water bed. Dry cupping along the spine, followed by the application of heat, is to be recommended. Calomel purges are necessary, and ergot may be given. In syphilitic cases mercurial inunctions may be tried, and often do good. Iodides are useful in certain cases. If necessary the urine should be drawn off with an antiseptic catheter, and if cystitis supervenes, the bladder ought to be washed out daily with boracic acid solution. Bedsores should be prevented by keeping the skin very dry and clean and

painting the parts subjected to pressure with methylated spirits. Later on a course of massage may be found a useful measure.

MYELITIS, CHRONIC.—The patient must lead a very quiet and easy life. Tonics are always helpful, arsenic and strychnine being of special service. In syphilitic cases mercury and potassium iodide may be tried. Blisters applied to the spine are useful, and so is hot douching. Massage and passive movements will do much to remedy any stiffness in the joints.

MYXŒDEMA.—The patient should be guarded against exposure to chills, as death generally results from some chest affection, such as bronchitis or pneumonia. He must, therefore, be warmly clothed. In severe cases absolute rest in bed is imperative. As constipation is often a marked feature, this must be remedied by such drugs as extr. cascar. liq. or pulv. glycyrrhiz. co. The body temperature should be maintained by the use of blankets and hot water bottles. Thyroid treatment must be instituted from the very first. The dry powder may be given in doses of $1\frac{1}{2}$ to 3 grains per day, and this amount may be gradually increased up to 10 or even 15 grains. In any case the dose ought always to be small to begin with, as large doses cause circulatory disturbances and pyrexia. When all symptoms have disappeared the dose may be lessened, but the patient must continue to take a grain or two every day for the rest of his life.

NEPHRITIS, ACUTE.—Under this heading are comprised three different pathological varieties of Bright's disease, viz., acute parenchymatous nephritis, acute diffuse nephritis, and acute interstitial nephritis. In this disease it is essential that the patient be kept very warm in bed between blankets. Cupping the loins, with the application of moist heat in the form of mustard poultices, does good, not only in relieving pain, but in diminishing the pressure within the vessels of the

kidneys. Elimination by the skin may be effected by the administration of diaphoretics, such as liq. ammon. acetatis with the addition of spt. æther. nitrosi. In severe cases a more active remedy will be found in pilocarpin, of which $\frac{1}{2}$ grain may be injected hypodermically. Still another valuable measure is the wet pack. This consists in wrapping the patient in a sheet wrung out of hot water, and then covering him over with several blankets.

Hydragogue cathartics will also serve a useful purpose. The best are magnes. sulph. and pulv. jalap. co. (grs. 60) ; while sometimes elaterium in full doses of $\frac{1}{4}$ to $\frac{1}{2}$ grain acts better than any other remedy. Diuretics are often employed in acute nephritis, and pot. acet. or pot. citrat., especially when combined with infus. digitalis, is very beneficial. So are caffeinæ citras and theobromin. et sod. salicyl. (grs. x).

The diet of the patient must receive special attention. We have, on the one hand, to avoid gastro-intestinal troubles, which are very easily induced in cases of nephritis, and on the other to guard against irritation of the inflamed kidneys. At first the diet should consist entirely of milk or of milk diluted with Vichy water. It must be remembered, however, that milk is very apt to induce constipation and that in time the patient tires of it. Accordingly other articles of food must be given as early as possible in the course of the disease, such as thin gruels made from some of the farinaceous foods, e.g. arrowroot or rice. When the patient's condition has improved somewhat he may have milk puddings, bread and butter, dry toast, and vegetable soups. Later still fish, chicken, fruit, and vegetables may be allowed. Alcohol is contra-indicated, as in any form it irritates the kidneys. If the patient is very thirsty he should have ordinary water, aerated water, or buttermilk.

As convalescence becomes established it will be necessary to order a mild hæmatinic and diuretic mixture such as :—

R	Ferri et Ammon. Citrat.	.	.	3ij.
	Potassii Citratis	.	.	3iij.
	Tincturæ Scillæ	.	.	3ij.
	Glycerini	.	.	3ss.
	Infusi Calumbæ ad	.	.	3vj.
	S. et M. ut Ft. Mist.			

Sig. A teaspoonful to be taken thrice daily after meals.

At the same time the patient should have a glassful of Apenta water every morning before breakfast. He must guard against cold, and wear very warm clothing. A change of air to some mild country or seaside place is often beneficial.

In cases of acute nephritis numerous complications may call for special treatment. Vomiting is sometimes troublesome. In such cases the stomach should be completely rested for several hours, ice given to suck, and a mixture of bismuth. subnit. (grs. x) with acid. hydrocyan. dil. (℥iij) administered every three or four hours. Diarrhœa does not usually call for active interference unless excessive, when bismuth. carb. (grs. xx) may be given thrice daily. Dropsy is to be relieved by such measures as the administration of cathartics or diuretics, and by tapping if need be.

Uræmia is one of the most serious complications and requires special management. The patient should have 1 minim of croton oil mixed with a few drops of olive oil and placed on the back of the tongue, or instead he may be given $\frac{1}{4}$ grain of elaterium. The skin should be made to act by injecting $\frac{1}{12}$ grain of pilocarpine hypodermically, always bearing in mind the risk of its causing sudden pulmonary œdema. The wet pack and vapour bath are extremely useful supplementary measures. Amyl nitrite may be inhaled, and bleeding may be resorted to in desperate cases. If convulsions are troublesome rectal injections of chloral hydras (15 to 20 grs.) should be tried.

NEPHRITIS, CHRONIC DIFFUSE.—This is the

condition known in its first stage as large white kidney, and in its second stage as small white or secondary contracted kidney.

In this form of nephritis the patient, when able to move about, should wear warm clothing, if possible live in a warm climate, and at all events strenuously guard against exposure. By giving strychnine and iron the general health and nutrition are improved, while judicious dieting will also help. A pure milk diet is generally highly beneficial, while buttermilk forms a useful variety. As the patient improves he may have the same diet as has already been recommended in cases of acute nephritis (*q.v.*), but it is never advisable to give up the milk diet too suddenly, and the patient should always have abundance of fluid. The great aim is to make the diet as nutritious as possible. While vegetarianism may be suitable for a time, the patient's strength cannot long be maintained on it, and he is apt to become very anæmic if red meat is not allowed sooner or later. To begin with he may have mutton and eggs, and if these suit, roast beef and steaks may be added to the patient's dietary. If albumen persists to any great extent in the urine red meat and eggs must be withheld, and only fish, chicken, or veal allowed, but in great moderation, together with fresh fruit and vegetables.

In cases of chronic diffuse nephritis which show acute symptoms the patient must be kept warm in bed and treated exactly as if the case were one of acute nephritis.

NEPHRITIS, CHRONIC INTERSTITIAL. — The treatment of this condition consists rather in protecting the patient against the results of the disease than in attempting a cure which is altogether impossible. The patient must avoid cold and damp, and wear warm clothing. Whenever possible he should select a warm equable climate and work which does not entail any undue mental or physical strain. Tonics, such as strychnine, may be administered. Open-air exercise is a useful measure in promoting a healthy action of the skin, so also are warm baths. Regular action of the

bowels must be maintained by saline purgatives. A useful hæmatinic and cathartic mixture consists of:—

R	Ferr. Sulph.	.	.	.	.	grs. 60.
	Magnes. Sulph.	.	.	.	.	℥iss.
	Acid. Sulph. Dil.	.	.	.	.	℥ij.
	Aq. Dest. ad	.	.	.	.	℥vj.
S. et M. ut Ft. Mist.						

Sig. A tablespoonful to be taken in water before breakfast.

The diet must be regulated along the lines laid down for patients suffering from chronic diffuse nephritis (*q.v.*). Milk and a strictly vegetarian diet suit many, but in most cases the addition of eggs, mutton, and occasionally of beef is necessary to maintain the strength and to combat the anæmia. Fruits either cooked or raw are highly beneficial, especially apples, grapes, oranges, and bananas. Alcohol, as a rule, should be absolutely avoided, although in some cases the lighter forms may be allowed in strict moderation.

Dyspepsia is often complained of, and is best treated by careful attention to the diet and the administration of bismuth, soda, and rhubarb in powder before meals. Diarrhœa may call for the use of astringents, such as tr. catechu and mist. cretæ. If headache is troublesome, 5 grains of calomel should be given, and 1-minim doses of liq. trinitrini prescribed. When dropsy supervenes it is to be treated by rest in bed and the measures detailed in the consideration of acute nephritis (*q.v.*). Uræmia and convulsions are also referred to under the latter heading. If the blood pressure is very high it is well to keep it within bounds by putting the patient on small doses of liq. trinitrini and giving a fairly large dose of pulv. jalap, co. occasionally. Potassium iodide does not lower the blood pressure, but it seems to benefit some cases of chronic interstitial nephritis in a remarkable way. It is certainly well worth a careful trial in advanced cases of this disease.

NEURALGIA.—Apart from local irritation due, for

example, to dental caries, neuralgia is usually merely a symptom of some general constitutional condition such as anæmia, rheumatism, gout, or syphilis. It is specially common in those who are thin, or debilitated from any form of exhausting disease. Thus it is common after an attack of influenza, and in elderly patients it may follow herpes zoster. In women especially to be remembered is neuralgia of the pelvic organs.

In the treatment of this affection we must first of all find out the cause and remove it. If the patient is anæmic a course of iron, supplemented by a somewhat generous diet and fresh air, will do good. In many cases better results are obtained by giving a combination of iron and arsenic. In rheumatic, gouty, or syphilitic subjects the appropriate constitutional remedies must be administered. In syphilitic neuralgia the pain is usually worst at night, but is quickly relieved by 10-grain doses of pot. iod. Three important tonics should be kept in mind in treating neuralgia in debilitated subjects. These are cod-liver oil, strychnine, and quinine. Sometimes alcohol in the form of burgundy or even of port proves beneficial, but care must be exercised in the use of these, as alcoholic habits are very readily acquired. In any case it is better to avoid the use of medicated wines altogether. In the same category as alcohol must be placed opium. This should never be used save as a very last resource.

Excellent local remedies are equal parts of camphor and chloral hydras, A.B.C. liniment, and also menthol; while in chronic cases liquor epispasticus may be painted over the affected part. Internally one of the coal-tar products, phenacetin or phenazonum in 10-grain doses, may be tried. These are often advantageously combined with sod. brom. in 15-grain doses. In neuralgia of the fifth nerve butyl chloral in doses of 2 to 5 grains often acts as a specific. Tinct. gelsemii (℥x t.d.s.) may also be tried. In every case constipation should be remedied, if present, by means of saline aperients.

Electrical treatment and surgical measures may be considered in intractable cases. Injection into the nerve of alcohol or of a 1 per cent. solution of boric acid (Mv) has been followed by good results in suitable cases.

NEURASTHENIA.—Patients suffering from this condition are often made worse by injudicious treatment. In searching for the primal cause we must never overlook the sexual relations of the patient, male or female. Thus at the climacteric period neurasthenic symptoms may develop in the female, while the condition of neurasthenia may become pronounced in the male on account of some interference with his normal sexual habits. Unfortunately but little attention is given to this element as a causal factor in this disease, and consequently many cases are improperly treated by their medical adviser. Apart from the sexual relations of the patient, we have to consider his work, mode of life, and general habits as to food, drink, sleep, and so on. Drugs, apart from those which tend to improve the patient's general health, such as cod-liver oil, iron, and arsenic, are of comparatively little value in the treatment of neurasthenia.

Most important is hydrotherapy. In its simplest form this may be ordered as a cold bath every morning, followed by vigorous towelling. Salt-water baths are also very helpful. Hydrotherapy is also of service in relieving the constipation which is usually co-existent. Open-air exercise, either in the form of walking or golfing, is to be ordered. The mind must be kept free from worry. As the weight is usually reduced, it is well to attempt to fatten the patient judiciously, taking care, however, not to upset the digestive organs during the process. Milk, butter, eggs, and vegetable soups are invaluable. The patient should have at least nine hours of sleep, with occasional rests during the day. Sleeping draughts should not be prescribed. If they are required the physician should keep them entirely in his own hands.

Massage and electricity have their uses, the former

being specially valuable in promoting tone and encouraging sleep. Prolonged rest from work may be necessary in severe cases, and a sea voyage is one of the best antidotes to neurasthenia. Isolation treatment in a special nursing home certainly has its advantages. Unfortunately this is not within the reach of all. A few weeks spent quietly at a farm-house, or in a hydropathic, frequently benefit the patient, especially after he has already made some progress towards recovery. Cheerful company and confidence in his medical adviser are powerful adjuncts in the treatment of this troublesome malady.

NEURITIS.—The patient must rest in bed. The bowels should be kept open by means of calomel and salines. If pain is marked 10-grain doses of aceto-salicylic acid or of phenacetin thrice daily may be ordered. Hot lead and opium fomentations are also serviceable. Alcohol must be forbidden in all cases. In syphilitic patients iodides, and in rheumatic subjects salicylates, are to be kept in mind.

The diet should be light, and if the appetite fails some simple bitter tonic, such as sod. bicarb. (grs. x), tinct. nuc. vom. (℥v) with glycerine and inf. cascarrillæ, may be ordered. If insomnia is troublesome a 20-grain dose of sod. brom. will be found efficacious. If drop foot is present the limbs should be supported by means of sand-bags. If the heart's action is feeble strychnine, caffeine, or even strophanthus may be administered.

When the acute state is over gentle massage, passive movements, and the judicious employment of electricity will complete the cure. Tonics such as cod-liver oil and iron are also indicated.

In cases where the pain is very acute the limbs may be loosely wrapped in cotton wool, and the bedclothes supported by means of a cradle.

NIGHT-TERRORS.—The patient should have a very light supper at least two hours before going to bed. Reflex causes, such as intestinal parasites and adenoids, should be remedied. All forms of mental excitement,

especially just before retiring to rest, must be studiously avoided. The bedroom must be well aired, and the patient should be told not to lie on his back. In the case of children a small dose, say $7\frac{1}{2}$ grains, of sod. brom. is very useful when given about an hour before bedtime. In the case of adults it is often a good plan to order them to have a very light supper at 8.30, go for half an hour's walk, and retire to rest shortly afterwards.

OBESEITY.—Cases of continuous increase in weight are frequently met with in practice which appear to be of an hereditary nature. They are not, as a rule, very amenable to treatment. Apart from these, however, we find patients becoming obese at or after middle life from errors in diet, sedentary habits, and lack of fresh air. Such cases are frequently greatly benefited by judicious treatment.

In the first place, open-air exercise must be enjoined. Most people eat too much butcher meat. The latter seems to be specially injurious in the case of elderly persons, leading to obesity, arterio-sclerosis, and their attendant ills. The diet of the obese, therefore, must be very carefully regulated. It is specially important that the intake of carbohydrates and fats should be reduced to a minimum.

The following articles of diet are *forbidden*: milk, cream, and butter; farinaceous foods; potatoes, peas, and beans; fat and fat meats, especially pork and veal; salmon, mackerel, and eels; sugar and all kinds of sweets; all sweet wines and beers.

The following *may be taken*: lean meat and game or poultry in strict moderation; white fish, except those prohibited; green vegetables, and fruits of the less sweet varieties; a little old whisky, Niersteiner or good claret; black coffee or coffee sweetened with saccharin.

Special forms of dietary may be prescribed. Thus one of the best is the Salisbury treatment, which consists essentially in giving the patient abundance of lean meat and ordering a pint of hot water to be

drunk one hour before each meal. Later, fish and green vegetables may be taken in addition. Von Noorden's dietary gives excellent results in many cases. It may be outlined as follows :—

- 8 A.M. Cold lean roast beef or mutton, 3 oz.; bread, 1 oz.; weak tea or coffee with saccharin.
- 10 A.M. One egg softly boiled or poached.
- 12 noon. One small cup of bouillon.
- 1 P.M. One small cup of clear soup; lean beef or mutton, 5 oz., or a similar amount of fish; potatoes and green vegetables, 3 oz.; fresh fruit, 3 oz.
- 3 P.M. Small cup of black coffee.
- 4 P.M. Fresh fruit, $\frac{1}{2}$ lb.
- 6 P.M. Skimmed milk, 8 oz.
- 8 P.M. Cold lean beef or mutton, $\frac{1}{4}$ lb.; bread, 1 oz.; a small amount of stewed fruit.

Every morning the patient should drink a glassful of Apenta or other mineral water while dressing. Those who can afford it will benefit greatly by taking the "cure" at one of the approved spas.

Drugs, such as thyroid, are often of little value, and may do much harm. Needless to say, all advertised remedies must be discountenanced and patients warned against their use.

OSTEOMALACIA.—Phosphorus may be tried in slight cases. Pituitary extract is stated to be of some value. Oöphorectomy has been successfully adopted in one or two recorded instances.

PALPITATION.—(See HEART, DISEASES OF.)

PARALYSIS AGITANS.—The treatment of this disease is not very encouraging. Tonics are only of value in that they help to increase the appetite and so keep the patient's general health in fair condition. Warm baths are useful in some cases. The general

life of the patient must be carefully regulated. He should live in the country if possible, and be kept free from worry and excitement. As much of his time as conveniently can ought to be spent out of doors. His food ought to be plain, and it is hardly necessary to add that alcohol should be forbidden. Constipation usually requires attention. Arsenic undoubtedly appears to produce temporary benefit in some cases, but it is just as often unsatisfactory. The liquor arsenicalis may be tried in gradually increasing doses up to 10 minims three times a day after meals.

The hypodermic injection of $\frac{1}{80}$ grain of strychnine once or twice a week may be tried in advanced cases. Exercises and passive movements deserve to be considered, while massage is often beneficial in the later stages of this disease. The administration of the following pill has been suggested as likely to be of service in certain cases :—

R	Codein. Phosph.	.	.	.	gr. $\frac{1}{2}$
	Hyoscin. Hydrobrom.	.	.	.	gr. $\frac{1}{200}$
					M. ut Ft. Pil.

Sig. One to be taken morning and evening.

Hyoscine hydrobromide may also be given alone in solution, but in our experience the combination with codeine is to be preferred.

PEDICULOSIS.—This condition, as it affects the head, is unfortunately very common amongst children, especially those attending State-aided schools. This being so, it is very desirable that female children at such schools should be compelled to wear the hair short in order to diminish the risk of infection. To get rid of the pediculi and their ova the hair must be thoroughly soaked for several hours with paraffin oil, and then thoroughly washed with soap and water. In long-standing cases the hair should first be cut quite short before any treatment is undertaken, and especially if it is matted together with crusts and secretion. The ova which remain adherent can usually be removed

by means of a small-toothed comb after the hairs have been soaked with hot vinegar.

Where the pubic hairs are involved, or those in the axilla, by shaving the affected parts and then applying ung. hydrarg. a cure is readily effected, provided always that steps are taken to thoroughly purify the clothing by prolonged boiling.

Pediculosis of the body is a very troublesome affection. In this case the clothing should be thoroughly treated, and sulphur freely dusted over the under garments. Attention must also be paid to the hairy parts of the trunk, as not unfrequently the pediculus finds a lodgment there.

PEMPHIGUS.—The bullæ must first of all be pricked, and the contents expressed. They should then be dressed with a mild antiseptic ointment. Internally arsenic, strychnine, quinine, and cod-liver oil may be administered. Arsenic, however, is undoubtedly the most satisfactory drug in cases of this disease.

PERICARDITIS.—Rest in bed and light, digestible food are essential. The best local application is an ice-bag over the præcordial region, care being taken to avoid depression and collapse in very feeble patients, especially children. Blistering is also valuable, but before applying cantharides the urine should always be carefully tested. The blister should be placed a little to one side of the friction area, otherwise further auscultation of the part will be troublesome, or even impossible. It is generally advisable to secure a free action of the bowels by means of hydrarg. subchlor. (grs. v) followed by a mild saline. In rheumatic cases the administration of salicylate of soda is essential. If the patient is restless 10 to 15 minims of liq. morph. hydrochlor. may be given, but its effect must be carefully watched, as it is very apt to produce constipation with attendant straining at stool, which, of course, is to be avoided.

When the pulse becomes rapid or irregular, digitalis or strophanthus should be administered. If heart

failure threatens, alcohol in the form of brandy or of champagne, together with the hypodermic injection of strychnine, must be thought of. In bad cases of per carditis gastric irritability may become a marked feature. In fact, it may sometimes be induced by the rash use of digitalis. Under such circumstances the heart is in great danger, and resort must be had to alcoholic and other means of stimulation. The best form of food in such cases is beef- or chicken-jelly, sherry-whey, and a small amount of peptonised milk.

When effusion has occurred cantharidin in the form of blisters may be tried locally. Potassium iodide in 5-grain doses may also be administered. When everything else fails we may tap the pericardium, especially where the latter is greatly distended and the pulsus paradoxus is present. It is advisable however, to draw off only 2 or 3 ounces of fluid, otherwise serious syncope may be brought about by too sudden alteration of the pressure within the pericardial sac.

During convalescence the patient should rest as much as possible. Over-exertion is specially to be avoided. Tonics such as arsenic, iron, strychnine, and cod-liver oil are useful in maintaining the general health of the patient.

PERITONITIS.—In cases of acute general peritonitis the only hope lies in an immediate laparotomy. The physician, after he has made his diagnosis, may administer a hypodermic injection of morphia in order to temporarily relieve the patient's agony and so diminish the risks of shock. Morphia, however, must not be employed with any other object in view. It is extremely unwise to order an aperient, although, as a general rule, a warm olive oil enema will do no harm. Hot fomentations must likewise be regarded as a purely temporal expedient.

Cases of acute local peritonitis do undoubtedly occur in which recovery takes place without surgical interference. Here the application of hot turpentine fomentations, morphia hypodermically, and olive oil enemata

may be all that is required. At the same time it is always advisable to have the opinion of a surgeon at once, even although the pulse and general condition of the patient appear to be quite satisfactory.

PERNICIOUS ANÆMIA. — (See ANÆMIA, PERNICIOUS.)

PERTUSSIS.—In the early or catarrhal stage of this disease the patient should be isolated as far as possible. If feverish he must be kept in bed, in a room whose temperature should not be allowed to vary from about 65° Fahr. In severe cases a moist atmosphere may be maintained by means of a bronchitis kettle. Abundance of fresh air is also essential, but draughts must be strenuously avoided. For the cough and tendency to fever a simple mixture such as the following may be given to a child of five years :—

R	Vin. Ipecac.	.	.	.	.	℥ij.
	Liq. Ammon. Acet.	.	.	.	.
	Glycerini	.	.	.	.	āā ℥ss.
	Aq. Dest. ad	.	.	.	.	℥iij.
					M. ut Ft. Mist.	

Sig. One teaspoonful to be taken every four hours in water.

In the later, or paroxysmal stage, the patient must have a plentiful supply of fresh air, and provided he is not too ill and the weather favourable, he should be out of doors as much as possible, care being taken always that he is not allowed to come in contact with other children. If the weather is inclement, or the child too ill, he must be kept indoors in a large well-ventilated room ; and, wherever possible, it is well to arrange that the sleeping apartment should be separate from the room in which the child has been living during the day. The feeding of the patient is often a great trouble, as vomiting is so marked a feature of the disease. As a rule it is advisable to wait until the termination of a paroxysm before feeding. The food must always be of the simplest possible description. Milk, clear soups,

beef-jelly, chicken, fish, pounded meat, eggs, farinaceous puddings and custards will be found the most suitable articles of dietary. In very severe cases, attended with inability to retain ordinary food, the child may be given sherry-whey, teaspoonfuls of beef- or chicken-jelly, and meat-juice.

In the actual treatment of the disease nothing in our experience is so useful as the vaporisation of creosote in the room occupied by the patient. Internally two drugs are of most service, viz., belladonna and phenazonum, but on the whole the following prescription is most generally applicable in the treatment of cases of pertussis :—

R	Ammon. Brom.	.	.	.	℥48.
	Tinct. Belladonn.	.	.	.	ʒij.
	Glycerini	.	.	.	ʒss.
	Aq. Dest. ad.	.	.	.	ʒiij.
	S. et M. ut Ft. Mist.				

Sig. One teaspoonful to be taken in water every six hours (or oftener, if required).

Another drug, frequently recommended, is bromoform ; but apart from the fact that it frequently fails to relieve the paroxysms, this remedy is not by any means an absolutely safe one.

Vaccine treatment has proved successful. The vaccine is prepared from Bordet-Genou organisms. An autogenous vaccine, prepared from the patient's sputum, may also be of service.

During convalescence, which may be prolonged, tonics such as quinine, iron, and cod-liver oil will be found very valuable. A holiday at the seaside is also unquestionably beneficial. Watch must be kept over the chest for several months, as bronchiectasis, emphysema, and pulmonary tuberculosis are common sequelæ. Rachitic children ought to receive special attention, as in them attacks of pertussis are apt to be unusually severe.

PHARYNGITIS, ACUTE.—It must be carefully

remembered that pharyngitis may be merely a symptom of some infectious disease, or the result of a rheumatic or gouty diathesis. At the outset it is well to give 5 grains of hydrarg. subchlor., followed by a seidlitz powder next morning. If the patient is at all feverish he should be confined to bed, and the temperature of the room maintained at 65° F. The diet should consist of milk, beaten-up eggs, custards, and soups. Abundance of bland fluids, such as barley-water, should be given. Twenty- or 30-minim doses of liquor ammon. acetatis may be administered every four hours. In rheumatic subjects salicylates must be given. Locally, cold compresses are very valuable, and if the uvula is much swollen ice may be given to suck.

PHARYNGITIS, CHRONIC.—This is common in those who suffer from dyspepsia and constipation, in rheumatic, gouty, and syphilitic subjects, and in those who are anæmic or who work in close and otherwise unhealthy atmospheres. It is also very frequently associated with nasal conditions and with tonsillitis. All these factors must be kept in mind when the treatment of chronic pharyngitis is being undertaken. Locally sprays of sod. bicarb. and sod. bibor. (grs. v of each to the ounce) are very helpful. These should be used two or three times a day. Painting with glycerin. acid. tannici is also to be recommended. Chlorate of potash pellets may be sucked occasionally, and in rheumatic subjects trochis. guaiaci may be tried.

In the granular variety, besides attending to the general health of the patient and giving small doses of syr. ferr. iod. internally, the local application of iodine often does good :—

R	Iodi	grs. viij.
	Pot. Iodidi	grs. xv.
	Ol. Menth. Pip.	℥ij.
	Glycerini	℥j.
	S. et M. Ft. Pigmt.	
	Sig. To be applied night and morning.	

Failing this the galvano-cautery must be employed. It is applied to each granule, and, generally speaking, this form of treatment, if thoroughly carried out, is very satisfactory.

PHLEBITIS.—The patient must rest in bed with the affected limb raised on a pillow. The parts may be painted several times daily with *lin. belladonnæ*. The bowels should be kept freely open by means of saline aperients, and the diet must be very light. Prolonged rest is essential, and when recovery has taken place the limb ought to be carefully bandaged before the patient is allowed to get out of bed. The risk in venous thrombosis of part of the clot becoming detached ought never to be forgotten, as it may lead to serious consequences. Hence the importance of keeping the patient at rest for a considerable period.

PHOSPHATURIA.—Save where this is the result of actual disease in the genito-urinary tract, the condition is not one of any great importance. The patient, however, is apt to regard it very seriously. Its treatment is, therefore, of considerable moment. Regulation of the gastro-intestinal tract, the adoption of an easily digested dietary, to the exclusion of red meat, is to be recommended. All excesses are to be avoided. The patient should drink large quantities of barley-water and home-made lemonade. Ten-minim doses of acid. nitrohydrochlor. dil. may be given thrice daily after meals.

PHTHISIS.—(See TUBERCULOSIS, PULMONARY.)

PITYRIASIS VERSICOLOR.—This skin eruption is common in advanced cases of pulmonary tuberculosis. It may be treated by the application of any mild antiseptic, such as *ung. acid. salicyl.* A lotion of *liq. carbon. deterg.* (3j to the ounce) may also be employed. Treatment should be maintained for some time after the disappearance of the condition, as recurrence is very common.

PLAGUE, BUBONIC.—Isolation of the patient, and thorough disinfection of the clothing and discharges, are essential. The actual treatment of the disease is

mainly symptomatic. The patient must be kept in bed, and special attention paid to the condition of the heart. Stimulants are most essential, such as alcohol, ether, and ammonia, while strophanthin or strychnine may be given hypodermically. Inhalations of oxygen are also valuable, especially in the pneumonic variety of the disease. Lustig's serum may be tried. In the bubonic form local applications of belladonna, followed by free incision should the bubo suppurate, are all that is necessary, care being taken to prevent spread of infection when the bubo is opened. Throughout the course of the disease the patient's strength must be supported by attention to the diet and by the use of brandy or of champagne. Where plague is prevalent all "contacts" should be quarantined, and kept under careful observation for at least ten days. Haffkine's serum may be injected as a prophylactic measure.

PLEURISY.—The patient must be kept in bed in a room of equable temperature. Five grains of hydrarg. subchlor. should be administered at the outset of the treatment. In rheumatic subjects 10-grain doses of sod. salicyl. will be found helpful. In order to relieve the pain warm applications, such as small mustard poultices, are beneficial. The local application of cantharides or of iodine is also distinctly valuable, care always being taken to examine the urine before applying a blister in such cases. Bandaging the chest and the administration of syr. codein. phosph. to allay the cough are also useful measures.

If effusion makes its appearance saline aperients are indicated. The chest may be painted with equal parts of the weak and strong tinctures of iodine, or a series of blisters may be tried. In many cases aspiration, however, is necessary. It should always be resorted to in cases which do not tend to improve or in which urgent symptoms develop. Care should always be taken to ascertain the actual presence of fluid by means of an exploring needle before attempting to aspirate.

During convalescence tonics such as quinine and cod-

liver oil are indicated. Pot. iod. is also useful in aiding the removal of residual fluid, and in restoring the pleura to the normal condition.

PLEURODYNIA.—Locally, lin. terebinthinæ may be applied or a large mustard and linseed poultice. Internally 15-grain doses of sod. salicyl. should be given every four hours until relief is obtained. By persons predisposed to this condition woollen clothing should always be worn next the skin.

PLUMBISM.—The treatment of acute lead poisoning consists in giving an emetic, followed by acid. sulph. dil. (℥30 in 10 ounces of water). Milk, white of egg, and barley-water may be given freely. For the pain a hypodermic injection of morphia is indicated.

In chronic poisoning by lead prophylaxis is very essential. Before food the worker should thoroughly scrub his hands and finger-nails. After meals the teeth should be brushed. Hot baths and abundance of milk are valuable preventive measures. As regards the actual treatment of chronic lead poisoning, the patient must cease work entirely. Every morning he should take from ʒij to iv of magnes. sulph., and thrice daily 5-grain doses of pot. iod. (see also COLIC, LEAD).

The treatment of lead paralysis differs in no way from that referred to above, but in addition the use of strychnine, massage, mild electric currents, and even electric baths is highly beneficial in restoring the function to the affected limbs.

PNEUMONIA.—The patient must be kept at rest in bed as completely as possible. He must on no account be allowed to sit up. Exertion in feeding and during the action of the bowels is to be specially avoided. At the outset 5 grains of hydrarg. subchlor. should be given, and if the pain in the chest is at all severe 10 grains of pulv. ipecac. co. or a hypodermic injection of morphia (gr. $\frac{1}{4}$) may be administered. The local treatment may consist in applying leeches, mustard poultices or dry heat in the form of a hot-water bottle. In any case heavy poultices must not be employed, as

they only still further interfere with the breathing. The feeding of the patient demands special care in this disease. The strength has to be maintained, but at the same time gastric dilatation with consequent cardiac embarrassment has to be guarded against. Milk diluted with hot water is invaluable as a food in cases of pneumonia. In addition the patient may have beef- or chicken-jelly, strong soups, and gruels of sago or arrowroot made with milk. Small feeds ought to be given at very frequent intervals. In some cases alcohol is necessary, especially in old and feeble patients, as well as in those who have become habituated to its use. When the crisis occurs it is often advisable to give the patient an occasional tablespoonful or more of good brandy.

Throughout the entire progress of this disease we must stimulate the patient so as to maintain the strength of the labouring heart, and we must support the patient also against the risks of toxæmia. The mistake usually made is to over-stimulate. The heart is performing its functions under great difficulty in pneumonia, and if we urge it on a little we do well, but if we over-drive it the heart will certainly give out. In all cases a careful observation of the pulse, as to its rate, rhythm, and general strength must be made with great frequency. Sudden changes are very common in cases of pneumonia, and it is the physician's duty to forestall these if possible. This he can only expect to be able to do by repeated examinations of the patient's pulse. One of the best respiratory and cardiac stimulants is a hypodermic injection of strychnine (gr. $\frac{1}{80}$). This may be given every four hours alternately with drachm doses of spt. ammon. aromat. When strychnine is found to be insufficient, then digitalis may be tried, either in the form of the tincture, or it may be injected hypodermically as digitalin (gr. $\frac{1}{100}$). Ammon. carb. is a useful stimulant, and many authorities give it from the very outset of the disease.

It is very important that the mouth should be

washed out frequently, as re-infection readily takes place if the patient swallows his sputum. As there is a special tendency for patients with heart lesions to develop pneumonia, this fact should be kept in mind in cottage hospitals and elsewhere. During convalescence the patient must not over-exert himself. If the cough continues, the expectoration should be examined from time to time, especially for the presence of the tubercle bacillus. It is also well to examine the chest at frequent intervals. Great care must be taken to avoid chills, especially if the patient is sent away for a change of air.

Special therapeutic measures may now be briefly referred to. There are first of all oxygen inhalations. These are less valuable than fresh air in the room, and it is positively ridiculous to see a patient with an oxygen cylinder by his bedside while the air of the sick-room is being fouled by the presence of several relatives crowding around him. In milder cases oxygen inhalations of fifteen minutes' duration may be given every two or three hours, but in very bad cases it is often advisable to keep up the oxygenation continuously. Venesection is another method of treatment which may be practised when the patient becomes cyanotic and the impeded circulation threatens to fail. The removal of an ounce or two of blood often gives marked, if temporary, relief in such cases. Successful results following serum treatment depend largely on the type of pneumococcus present. It is apparently most beneficial in cases exhibiting the pure type.

Certain complications, apart from heart failure, are very frequent in this disease. Restlessness, which generally precedes delirium and insomnia, is best combated by small doses of pulv. ipec. co., by attention to the condition of the mouth, and by repeated tepid sponging. Insomnia usually yields to 15-grain doses of chloralamide. Paraldehyde, so often recommended, is not so good, as it frequently causes disagreeable after-effects. Delirium and hyperpyrexia are best

treated by tepid or cold sponging. In such cases the coal-tar products, *e.g.* phenazonum, and quinine ought never to be administered.

PNEUMOTHORAX.—The patient must be kept at rest in bed. For the pain the best remedy is a hypodermic injection of morphia (gr. $\frac{1}{4}$). This also helps to relieve the shock and mental distress of the patient. If the pulse tends to become feeble a hypodermic injection of strychnine (gr. $\frac{1}{60}$) may be given, and brandy or spt. ammon. arom. may be administered by the mouth. Bandaging the chest may give relief in some cases, but it is often necessary to aspirate if the dyspnœa and cyanosis become extreme. Oxygen inhalations are also said to be beneficial in certain cases.

POISONING.—The general rules to be observed in all cases of poisoning are these : (1) Empty the stomach ; (2) Give a suitable antidote ; (3) Stimulate the patient.

The first indication applies to all cases except those caused by mineral acids and corrosives. Useful emetics are, mustard (ʒij) or common salt (ʒss) in a tumblerful of warm water, and a hypodermic injection of apomorphin. hydrochlor. (gr. $\frac{1}{10}$). In many cases it is also advisable to wash out the stomach by means of a syphon tube.

The antidote given will vary with the nature of the poison. In the case of acids, chalk, baking soda, or plaster may be given with milk or white of egg. For alkalis, lemon juice, tartaric acid with milk or white of egg are indicated.

The patient should always be stimulated. Hot-water bottles or hot bricks, strong black coffee, brandy or whisky, and a hypodermic injection of strychnine (gr. $\frac{1}{60}$) are the various measures which may be resorted to.

POLIOMYELITIS ANTERIOR ACUTA.—During the early stage of this disease a good deal may be done to mitigate the patient's discomfort. An anti-febrile mixture, with lemon drinks if there is much thirst, and

dry heat applied to the spine are advisable. It is also recommended that mustard poultices be applied to the spine, and also a trial made of dry cupping. The diet should consist mainly of milk and farinaceous food. When the acute stage is over, and the patient is left more or less paralysed, warmth is the first essential in the treatment of the case. The affected limbs should be wrapped in cotton wool, kept in position by domette bandages. Warm baths are also highly beneficial at this stage, especially if followed by gentle massage with warm olive oil. The patient should also be encouraged to move his limbs against slight resistance. Electricity is also of great service, but the current should never be strong, nor should it be applied for more than from 5 to 15 minutes at a time. Cod-liver oil is generally given in the hope that it may help to keep up the general nutrition of the patient. Small doses of strychnine, say 10 to 20 minims of syr. ferr. phosphatis *ċ.* quin. et strychnina, may also be tried.

In the advanced stages of infantile paralysis the patient must be handed over to the surgeon, who is often able to correct deformities of the limbs by arthrodesis, tendon grafting, and tenotomy.

PRURITUS.—General itching, such as is so often met with in elderly patients, may be due to constipation, indigestion, and at times is associated with marked dryness of the skin. It may also result from exposure to cold. Warm clothing, warm baths, followed by inunctions of olive oil or of lanoline, and attention to the gastro-intestinal tract are the measures to be adopted in such cases. The most severe forms of pruritus, however, are those which are strictly localised. Two of these local forms call for special consideration: *Pruritus Ani*.—The causes of this distressing malady are very numerous, and include conditions such as hæmorrhoids, fissure of the anus, constipation, inflammatory conditions of the rectum and anus, eczema (often induced by incorrect treatment), thread-worms, and lack of ordinary cleanliness. The

worst form of treatment is the application of an ointment containing irritating substances such as carbolic acid or preparations of tar. These only render matters worse by making the skin and mucous membrane excessively irritable, thickened, and even eczematous. The cause should always be sought for in the first instance, and in all cases great cleanliness is to be enjoined. The parts should be washed frequently with a superfatted soap and water, and then thoroughly dried with cotton wool. Constipation must be guarded against, and in gouty patients especially red meat should be avoided. Surgical measures should rarely be resorted to in cases in which no local cause can be discovered, as operation is seldom beneficial under such circumstances. *Pruritus Vulvæ*.—Causes such as constipation, leucorrhœa, and diabetes mellitus require attention. Want of cleanliness is by no means an uncommon cause. The use of boracic lotion is generally found satisfactory in mild cases. If this fails, one of the best local remedies is liq. plumbi subacetatis (3j to the pint).

PSORIASIS.—Too frequently the constitutional condition underlying this skin affection is overlooked. Gout, rheumatism and syphilis undoubtedly appear to have a causal connection in some cases. In children especially a rheumatic heredity should always be inquired for. The worst possible method of treatment is the routine use of arsenic. This remedy may cause a more or less speedy disappearance of the spots, but at considerable cost to the patient. There can be no doubt whatever that arsenic is much over-prescribed in cases of psoriasis. It ought certainly never to be given in acute cases. If used in chronic cases it should be ordered as the liquor arsenicalis in doses increasing from 1 minim up to 5 or even 10. In some instances vin. antimoniale in 5-minim doses produces a good effect. In acute cases sod. salicyl. in 10-grain doses thrice daily often gives good results.

Local treatment may take the form of warm baths,

containing 4 ounces of pot. carb. This has the effect of removing the scales. Ointments such as one composed of acid. salicyl. grs. x, ichthyol 3j, and adip. lanæ hydros. ad 3j are often useful. Tar ointments may, however, be preferred. One of the best of all applications is the following :—

R	Acid. Chrysophan.	.	.	.	grs. v.
	Liq. Carbonis Deterg.	.	.	.	℥xv.
	Hydrarg. Ammon.	.	.	.	grs. x.
	Adip. Benzoat. ad	.	.	.	3j.
					M. ut Ft. Ung.

Sig. To be applied night and morning.

Other modes of treatment are by means of thyroid, high-frequency currents, and sulphur baths taken at a watering-place such as Harrogate. In chronic cases the X-rays certainly give encouraging results. Diet should also be attended to. Vegetarianism is probably most suited to such cases. A daily action of the bowels should be secured by saline aperients if need be. The clothing ought to be light and non-irritating, and open-air exercise must be enjoined.

PURPURA.—The patient should rest in bed, and be kept on very light diet, consisting mainly of milk, soups, and beef- or chicken-jelly. Fresh air is essential. In the rheumatic form salicylates should be given. Other remedies which may be tried are repeated doses of solution of adrenalin chloride (℥ v to x), calcii lactas (grs. x to xx), and liq. arsenicalis. As some cases are undoubtedly due to sepsis, anti-streptococcic serum may be tried. The after-treatment consists in administering a tonic of iron and arsenic, and recommending a change of air.

PYÆMIA.—(See SEPTICÆMIA.)

PYELITIS.—The patient ought to be kept warm in bed. The diet should consist principally of milk, chicken soup, and fish. Saline aperients and diuretics, especially pot. acetas and pot. citras, are indicated. Five- to 10-grain doses of hexamine are sometimes beneficial, but may entirely fail to bring about improvement. Hot

applications over the lumbar region, or even dry cupping, are of undoubted value. In mild cases the above treatment will suffice. In graver cases operation may be necessary, as if it is postponed there is great danger of serious kidney mischief. Vaccine treatment may be tried in otherwise intractable cases.

PYLOROSPASM.—This condition is sometimes met with in infants, and gives rise to intractable vomiting. In the treatment of pylorospasm the first step is to carry out gastric lavage once or twice every day. As many of these cases are associated with the presence of excessive mucus secretion, 5 or even 10 grains of sod. bicarb. may be given thrice daily. This may often be combined with advantage with minute doses ($\mathbb{M}\frac{1}{8}$) of tinct. opii. The feeding of the infant is of the greatest importance. It should, if possible, be breast-fed either by the mother or by a wet-nurse. Failing this, peptonised milk diluted with twice as much water may be tried, or whey may be given if milk disagrees. This treatment may be continued for two or three weeks, provided the infant is not losing ground, and in cases of simple pylorospasm a cure may be reasonably expected.

When, however, there is a true hypertrophy of the musculature of the pylorus then pyloroplasty may be recommended if medical treatment fails. The essentials to success in this operation must not be forgotten. We must have a rapid operator, and an exceptionally careful anæsthetist. More recently the somewhat simpler operation of splitting the muscular fibres of the pylorus has been followed by excellent results, and it is certainly the one we prefer. After either operation the greatest care must be exercised with regard to the feeding. At first the infant must be fed entirely by the rectum. Later whey or peptonised milk may be tried. It is important in all cases not to overfeed, and to proceed by easy stages until the infant is able to resume its normal diet.

PYORRHEA ALVEOLARIS.—Removal of tartar and frequent cleansing of the teeth and gums will pre-

vent this condition. When it occurs the tartar must be thoroughly removed and the gum pockets carefully destroyed. The following mouth-wash may be ordered :

R.	Acid. Carbol.	.	.	.	.	℥xv.
	Sod. Bicarb.	.	.	.	.	grs. xxx.
	Pot. Chlorat.	.	.	.	.	grs. xx.
	Glycerini	.	.	.	.	℥ss.
	Aq. Menth. Pip. ad	.	.	.	.	℥iij.
						M. ut Ft. Lotio.

Sig. To be used before and after each meal for swabbing the gums and teeth.

Vaccine therapy may also be resorted to. As a rule, however, these cases demand treatment at the hands of an experienced dental surgeon rather than of the physician.

RAYNAUD'S DISEASE. — Warm clothing and nourishing diet, including abundance of fat foods, are essential. Cod-liver oil is often of marked service. In syphilitic cases iodides should be given, while if there is a history of malaria small doses of quinine may be tried. Opium (gr. $\frac{1}{4}$) may be given thrice daily, especially if there is much pain. Local electrical treatment generally yields good results, either in the form of the Faradic or the constant current.

RENAL CALCULUS.—In cases of uric acid calculus the diet should consist largely of milk, farinaceous foods, fish and chicken. Red meat and alcohol are to be avoided. Contrexéville water is very beneficial. Piperazin is absolutely useless. Diuretics of the potassium salts are sometimes helpful, especially the citrate and acetate. In cases of phosphatic calculus the diet should be very nourishing, including meat. Sod. phosph. acid. in 15-grain doses is recommended, and sometimes does good. For the treatment of colic due to renal calculus see COLIC, RENAL.

RHEUMATISM, ACUTE.—The patient must in all cases be put to bed between blankets. He should wear

a long flannel nightdress, buttoning all the way down in front. This must be changed frequently on account of the excessive perspiration. A saline aperient should be administered at the outset. The diet best suited to such cases consists of milk, chicken or vegetable soups, and farinaceous puddings. Lemon drinks are very comforting, as the thirst is usually troublesome. The affected joints ought always to be wrapped up in cotton wool. Internally the best remedy is *sod. salicyl.*, but it must be given in full doses, say 15 to 20 grains, three-hourly until the symptoms have become less marked, then thrice daily for some days. Even after the pain has disappeared and the temperature has become normal this drug ought to be given in 10-grain doses for two or three weeks. The patient should remain in bed for from four to six weeks, depending upon the severity of the attack. During convalescence iron and cod-liver oil are invaluable. The greatest care must be taken to see that no after-effects are left upon the heart. The patient must not be allowed to resume work too soon, and a frequent examination of the heart is an additional safeguard.

Complications, such as pericarditis and endocarditis, are fully considered in their appropriate places. Hyperpyrexia is a very dangerous complication. It is best met by the administration of stimulants and by cold douching of the head. Sometimes stiffness remains in one or more of the affected joints. When this is so the treatment laid down for chronic rheumatism should be resorted to.

RHEUMATISM, CHRONIC.—Diet plays a very important part in the treatment of this affection. Fats, as a rule, are specially suitable, but sugar, starch and animal proteids are to be avoided. It is also safer to forbid alcohol. Change of climate, especially in winter, is often advisable. Woollen garments should always be worn next the skin, and chills carefully avoided. Open-air exercise and olive oil inunctions are prophylactic measures which might with advantage be adopted

more frequently. Locally we may have recourse to a variety of applications, such as lin. terebinthinæ, methyl. salicyl., ol. gaultheriæ, and a liniment composed of equal parts of lin. aconiti, lin. belladonn., and lin. chloroformi. Hot baths are useful, as are also electrical applications and radiant heat baths.

Constipation should be overcome by means of hydrarg. subchlor. and saline aperients. Dyspeptic symptoms and urinary troubles must also be attended to. Internally a combination of sod. salicyl. (grs. x to xv) and sod. iodid. (grs. v to x) seems to be most beneficial. Some cases receive more benefit, however, from tinct. guaiaci ammon. (℥30 t.d.s.). Treatment at spas may be resorted to, especially Buxton, Bath, Harrogate, Strathpeffer, and Aix-les-Bains.

RHEUMATISM, GONORRHŒAL (GONORRHŒAL ARTHRITIS).—The patient must be kept in bed on a non-stimulating diet, consisting largely of fats, milk, farinaceous foods, fish, and chicken. Tea, coffee, alcohol, and tobacco should be absolutely forbidden. Saline aperients are generally necessary. As there is often a urethritis present, this must be treated by weak, warm injections of pot. permang. Internally a mixture of pot. iod. and pot. brom. with small doses of liq. arsenicalis may be tried. Warm applications to the joints often afford some relief, as does also painting with equal parts of lin. belladonn. and lin. chloroformi. The most hopeful treatment, however, is by means of a gonococcal vaccine, which may be administered hypodermically or given by the mouth. There is no doubt whatever that vaccine treatment holds out the best prospect of a cure in such cases.

RHEUMATOID ARTHRITIS.—The general hygienic conditions of life must be strictly attended to. The house ought to be dry. The patient's diet must be nutritious, including abundance of fat. Animal proteids, however, should be reduced to a minimum. Exercise is important, and regular hours of rest must be enjoined. Woollen clothing must be constantly worn

next the skin. Salt-water baths, especially if warm, are often beneficial, if not actually curative. Simple, or better still vibratory, massage is of the greatest possible value, but it must be continued for a somewhat lengthy period. Hot air treatment is likewise useful. A sojourn at Buxton, Harrogate, or Strathpeffer can be recommended.

Drug treatment is not of much value. Iodides and arsenic may be tried, alone or in combination. Guaiacol carb. (grs. x t.d.s.) is occasionally helpful. On the whole, however, all these internal remedies are very disappointing. Treatment by means of anti-streptococcic serum has recently been recommended. It is advisable that in all cases the urine and teeth should be carefully examined, while the presence of kinks in the bowel should be borne in mind.

RICKETS.—Attention to the feeding of the patient is the first essential. If the child is breast-fed care should be taken that the method adopted is regular in every respect. Sometimes rickets is induced by prolonged nursing; if so the patient should be weaned. In cases of rickets all kinds of so-called “infants’ foods” and dried milk must be forbidden, as well as condensed, sterilised and otherwise “treated” milk. Pure milk must alone be used in such cases. After the twelfth month the child may have well-boiled oat-flour, custards, bread or potato and gravy, clear soups, and farinaceous puddings in addition, the latter sparingly. Eggs are also very valuable, if the patient can digest them.

Fresh air and warm clothing are necessary, and the child should have a tepid or cold sponge over after its morning bath. Massage of the limbs with olive oil is a beneficial measure. Cod-liver oil, either plain or with malt, or in the form of an emulsion, should always be given after meals in doses of 10 to 20 minims of the oil. Nothing can take the place of cod-liver oil. Petroleum is valueless as, being a mineral oil, it is not absorbed, but passes unchanged by the bowel. It is, therefore, a

waste of time to try it. Phosphorus is likewise of little or no value.

For deformities splints may be worn, but these must be removed at night, and the limbs massaged. Nervous phenomena, such as convulsions, tetany, and laryngismus stimulus, are best treated by cold douching of the spine and small doses of sod. brom.

RINGWORM.—When this occurs on the body the treatment is a comparatively simple matter. Any antiseptic ointment, such as one compounded of equal parts of ung. hydrarg. ammon. and ung. sulphuris will generally result in a speedy cure of the condition. When ringworm attacks the scalp, however, it is a very different matter. In this case the area or areas affected must be closely shaved wide of the margin of the disease. The patches should then be washed night and morning with hot water and soap, so as to remove all scales and débris. An ointment such as that suggested for ringworm of the body may be applied, or the parts may be painted over with liq. iod. fort. The most rapid and satisfactory results, however, are obtained by the use of the Röntgen rays. In the hands of an expert no ill effects need be feared; but the X-ray treatment of ringworm ought never to be entrusted to a novice.

Care must be taken to guard against the spread of infection. The patient must have a sponge, soap, towel, comb, and brush for his own special use. The cap or hat should be lined with paper, which can be frequently burnt. Needless to say, no hairdresser should be permitted to cut the hair of a patient suffering from ringworm, although we have reason to believe that this is frequently done.

ROUND-WORMS.—(See **INTESTINAL PARASITES.**)

RUBELLA.—(See **MEASLES, GERMAN.**)

SCABIES.—The patient should take a hot bath, lathering himself well with soap, for three nights. After drying with a towel, which he must keep for his own personal use, he should rub in ung. sulphuris.

In the case of children this may be diluted with paraff. mollis in order to prevent irritation of the tender skin. On the fourth night he must have fresh body and bed-clothes, the soiled ones being boiled for several hours before being used again. If there is much eczema associated with the scabies, sulphur cannot be used, but an ointment of equal parts of ung. hydrarg. ammon. and paraffin. mollis may be substituted.

SCARLET FEVER.—The patient should be isolated in a large, airy room. The latter should contain as little furniture as possible, and no carpet or curtains. The temperature of the room must be maintained at about 60° F. The diet should consist mostly of milk, farinaceous puddings, fish, and chicken, with lemon drinks. At the outset 2 or 3 grains of hydrarg. subchlor. may be given, and a daily action of the bowels should be secured. The throat requires special attention. It may be painted every two hours with 1 part of glycerin. acid. carbol. to 7 parts of glycerine. The only additional medicinal measure consists in giving 15 or 20 minims of liq. ammon. acetatis until the temperature returns to normal.

If pain in the ear is complained of a few drops of warm almond oil may be instilled, and the ear syringed thrice daily with warm boracic lotion (grs. x to the oz.). This lotion may also be employed as a nasal douche if there is much discharge from the nose. If the pulse becomes rapid and feeble, diffusible stimulants may be necessary, but alcohol should, as a rule, be avoided. Headache and other nervous phenomena are best treated by attention to the diet, free purgation, and an occasional dose of phenacetin (grs. ij to v). If the joints become swollen and painful they ought to be wrapped up in cotton wool, and 5-grain doses of acid aceto-salicyl. administered three or four times daily. If nephritis supervenes it must be treated in the usual way. Sometimes we get a considerable degree of toxæmia associated with hyperpyrexia and delirium. In such cases tepid sponging, combined with stimulation by means of strychnine and strophanthus, is indicated.

During the period of desquamation the patient should have a warm bath every night, and after the skin has been thoroughly dried it should be anointed with a mixture of *ol. eucalypti* (1 part) and *ol. olivæ* (7 parts). It is advisable to keep the patient in bed for six weeks in cases where the symptoms have been at all severe. It is also well to remember that cases which appear to be mild at the outset frequently develop serious symptoms later on if they are not carefully treated.

SCIATICA.—In every case it is well to make a rectal examination before commencing the treatment, as it sometimes happens that sciatica is merely a symptom of some affection of the lower bowel. *Sod. salicyl.* or *vin. colchici* should be given if the patient is rheumatic or gouty, and he ought to be kept at absolute rest in bed. Diet should consist mainly of white food, while red meat and tea should be absolutely forbidden. Very often such measures entirely fail to give relief. Local remedies must then be thought of. The A.B.C. liniment is sometimes effective, so also is iodine vasogen. Acupuncture along the course of the nerve may be tried, while injections of morphia into the nerve itself usually succeed when other measures fail. Hot air treatment is often of service, especially in chronic cases, so also is galvanism. Massage with *ol. gaultheriæ* is sometimes beneficial, especially when combined with passive movements. Turkish baths are occasionally found helpful, but these should not be persevered in if they do not appear to act beneficially. Mud baths have been credited with wonderful effects. It is important in every case to secure a daily action of the bowels, preferably by means of salines. During convalescence, and to prevent repeated attacks, cod-liver oil should be prescribed. The patient should also be advised to wear a knitted body belt and to avoid cold and damp. Surgical treatment may be necessary in persistent and chronic cases.

SCLERODERMA.—Cod-liver oil, iron and arsenic

may be ordered. Thyroid extract and injections of a 15 per cent. solution of thiosinamine have been recommended ; but in our opinion these two remedies are of very little value in this disease. Inunctions of olive oil or lanoline are sometimes helpful, especially if employed immediately after a warm bath.

SCLEROSIS, DISSEMINATED.—There is no curative treatment. Rest and change of scene, with avoidance of worry and excitement, may help to stay the course of the disease. Massage and hydrotherapy may be tried. Drugs are of little or no value, but in syphilitic cases a course of pot. iodid. seems advisable.

SCORBUTUS.—The diet is here of first importance. Abundance of potatoes and fresh green vegetables, with orange or lemon juice, fresh untreated milk, and strong soups or raw meat-juice should be taken. Mouth washes of pot. chlor. are valuable. If the gums are very soft and spongy, they may be treated with solid silver nitrate. Calcium chloride in doses of 10 to 15 grains may often be prescribed with advantage. The after-treatment consists in the administration of tonics.

The treatment of scurvy in infants consists in stopping all forms of artificial food and treated milk, and giving the patient only ordinary milk, suitably diluted if necessary. Potato cream is often very useful. In addition the patient should be kept at rest, and have teaspoonful doses of orange or lemon juice three times a day. Later on cod-liver oil emulsion may be prescribed with advantage.

SEBORRHOEA.—When this affects the scalp the latter should be washed every night with alkaline fluid soap and the following ointment well rubbed in :—

R	Sulphur. Sublim.	.	.	.	3j.
	Acid. Salicylic.	.	.	.	grs. xv.
	Adipis Lanæ Hydros.				
	Paraffin. Mollis.	.	.	.	āā 3ss.
					M. ut Ft. Ung.

Sig. To be applied at bedtime.

When the body is the seat of the disease warm baths should be taken daily, and an ointment, half the strength of the above, may be ordered.

SEPTICÆMIA.—The treatment of this disease and also of pyæmia may be considered together. Recently the treatment of these conditions has been entirely revolutionised by the introduction of vaccine therapy. The organism ought to be isolated at once and an autogenous vaccine prepared. Until the latter can be got ready stock vaccines should be injected in suitable doses. Appropriate measures must at the same time be directed towards the cleansing of any wounds or open sores, and general surgical treatment on modern principles adopted. The patient should be freely stimulated by means of alcohol, spt. ammon. arom., digitalis or strophanthus, and strychnine. Drugs such as sod. sulphocarbolates are utterly valueless.

SLEEPING SICKNESS.—(See TRYPANOSOMIASIS.)

SMALLPOX.—All those who have been in contact with the patient should be at once re-vaccinated, and put into quarantine for at least a fortnight. The sick-room ought to be large and kept well ventilated. It is also advisable to keep the temperature at 60° F., and to have the room darkened by means of red blinds. The diet should consist mainly of milk and farinaceous foods, although meat-juice and chicken soup may also be given. As thirst is usually a troublesome symptom the patient may have a variety of drinks, such as soda water or lemonade. Alcoholic and diffusible stimulants are often called for, especially in the more severe types of this disease. Throughout careful nursing is most essential, not only for the patient's comfort but for his ultimate recovery.

At the outset a calomel purge should be administered, and so long as the temperature is raised the patient should have 30-minim doses of liq. ammon. acet. combined with pot. citr. and tinct. opii, the latter aiding in the relief of the lumbar pain. The skin must be frequently bathed with tepid water, and afterwards

anointed with a mixture of ol. eucalypti and ol. olivæ (1 part in 7). The eyes should be specially attended to, and frequently bathed with boracic lotion. The eyelids may also be smeared with an ointment consisting of 4 grains of hydrarg. oxid. flav. to the ounce of soft paraffin.

In order to prevent pitting, various measures have been suggested. A mask of lint soaked in a solution of boracic acid should be worn over the face. The rest of the skin may be smeared over with vaseline. Evacuation of the contents of the pock is a very doubtful procedure, as it does not appear to prevent pitting to any marked extent.

Strychnine and digitalis may be necessary during the stage of suppuration, and it is here also that alcohol is called for, best given in the form of brandy. At any stage, however, when the pulse becomes feeble the patient must be judiciously stimulated by any of these remedies. Vomiting may be a very troublesome symptom, especially during the commencement of the attack. In such cases the sucking of ice and the use of morphia hypodermically are helpful measures. Great attention must be paid to the condition of the mouth and tongue in all cases of smallpox. The mucous membrane may be painted over with glycerin. acid. boric. and a mouth wash of pot. chlor. ordered.

During the convalescent period warm baths hasten the separation of the crusts, and at the same time promote the patient's general comfort. Tonics should also be given, combined with stimulants, while the diet should be as generous as possible. The urine ought always to be examined, and the risks of nephritis carefully borne in mind.

SPEECH DEFECTS.—These may take the form of lalling, lisping, aphthongia, idioglossia, or of stammering. Lalling is usually only met with in mental defectives. Lisping sometimes results from deformities of the mouth and teeth or from the acquirement of habit. Aphthongia is a sort of speech cramp. In all cases

deformities of the mouth and teeth should be looked for, and rectified if possible. In cases of idioglossia special attention must be paid to the pronunciation of the consonants. Otherwise painstaking and careful instruction in the art of pronunciation is called for.

Stammering is perhaps the most frequent speech defect which comes under medical supervision. In the first place all sources of local irritation must be attended to, such as enlarged tonsils, adenoids, dental defects, and phimosis. Tonics such as iron and cod-liver oil are frequently beneficial. As the strain of school life is particularly harmful, the child must be kept at home, provided that he is able at the same time to have plenty of outdoor exercise. The patient, if old enough, should be encouraged to sing. He should be made to repeat the letters or words with which he has difficulty, and must be made to read very slowly in a somewhat monotonous tone of voice. There is no doubt whatever that suitable reading exercises form the basis of successful treatment in such cases. The mode of carrying out these exercises is given by Dr. Colman as follows :—

1. The chest must be kept well filled with air.
2. The patient must speak slowly, with a full resonant voice.
3. When he comes to a word on which he tends to stutter, he should raise his voice, and direct his energies to vocalisation and not to articulation. If the difficulty be a voiced consonant he must be directed to "voice" it. If the consonant is voiceless his attention must be directed to the vocalisation of the subsequent vowel sound.
4. Gymnastic and singing exercises are valuable additions to treatment, and should there be associated movements present, the reading exercises should be carried on in front of a mirror, so that the patient may be aware of these himself and endeavour to suppress them.

SPRUE.—Rest in bed, combined with warmth and a diet consisting largely of citrated milk, is essential. Some authorities, however, prefer a meat diet to one of

milk. A flannel abdominal belt should be ordered, and the patient must be kept as quiet as possible. Under milk diet and prolonged rest a cure may be expected in many cases. The patient ought to be kept in bed until the motions become solid, while the milk diet must be carried out for at least six weeks longer. As regards drugs, liq. hydrarg. perchlor. (℥ 30 t.d.s.) sometimes acts well. Santonin is also favourably spoken of. The latter may be given in doses of 5 grains. Quite recently emetine hydrochloride has been given hypodermically, and the use of an autogenous vaccine made from organisms got in the mouth has been found highly beneficial.

STAMMERING.—(See SPEECH DEFECTS.)

STOMACH, CANCER OF.—In cases of pyloric cancer gastro-enterostomy holds out the best hope, at least of prolongation of the patient's life. Much depends, however, upon the early recognition of the disease. Otherwise all one can hope to achieve is relief of the patient's symptoms. Lavage is a very useful measure, but is not always available. Food must be given in small quantities every three hours. In less advanced cases finely minced mutton, chicken, fish and eggs may be given. Later on peptonised milk, malted foods, chicken or meat soups, and meat-juice must be substituted. Too much fluid ought to be avoided, as well as starchy and sweet foods, vegetable and fats. Alcohol in the form of brandy or dry champagne is often necessary. Bitter acid tonics are frequently beneficial in aiding the patient's digestion. When the vomiting becomes troublesome a mixture of bismuth and dilute hydrocyanic acid may be tried. Constipation may be combated by such remedies as pulv. glycyrrhiz. co. or extr. cascar. sagrad. liq. Finally, morphia must be resorted to in all cases when the pain becomes so persistent and intense as to be unbearable.

STOMACH, DILATATION OF.—This may or may not be curable, depending on the ultimate cause. In all cases, however, much may be accomplished in the way of giving the patient relief. Certainly the most

generally useful measure is lavage. This should be carried out in the evening. The solution employed may be one of sod. bicarb. (3ss to the pint), and the temperature of the water should be about 85° F. The diet is of very great importance. Sugar and farinaceous foods, tea, green vegetables, potatoes and anything likely to cause fermentation must be prohibited. It is a mistake, however, to feed the patient on slops and milk. He may have finely minced mutton, steamed fish, roasted chicken, eggs, dry toast, unsweetened coffee, and Vichy water. In some cases the Salisbury treatment is highly satisfactory. This consists of dieting the patient on lean meat and hot water.

Of drugs, strychnine is one of the best. It may be combined with dilute hydrochloric acid in a mixture made up with inf. gent. co. Electrical stimulation of the walls of the stomach is sometimes recommended. Surgical measures are not to be hastily resorted to in cases unassociated with malignant disease of the pylorus.

STOMACH, ULCER OF.—(See GASTRIC ULCER.)

STOMATITIS.—In the *Simple* variety of stomatitis prophylactic measures in the way of attending to the hygiene of the mouth are called for. When the disease asserts itself the cause must be got rid of, and the mouth frequently swabbed or washed out with chlorate of potash. In the *Follicular* type hot and irritating foods must be forbidden. In adults, alcohol and tobacco are harmful. A weak solution of sod. bibor. may be ordered as a mouth wash. The *Ulcerative* form may be prevented by attention to the mouth and teeth and by the avoidance of all sources of irritation. If mercury is the cause, this drug must be stopped at once. Astringent mouth washes, containing alum in the strength of 5 grains to the ounce, must be prescribed. Pot. chlor. is also invaluable as a mouth wash in this variety of stomatitis. *Thrush* is a form of stomatitis due to a fungus. It occurs in infants and in debilitated subjects. In infants the use of soothing teats and

dirty feeding bottles must be forbidden. In adults suffering from any form of debilitating disease, the mouth ought to be kept scrupulously clean. When thrush is actually present a solution of boracic acid may be used for swabbing out the mouth.

Cancrum Oris is really the gangrenous form of stomatitis. Treatment here must be vigorously and promptly carried out. Excision is the only satisfactory method of dealing with this condition. If the underlying bone is affected it must be thoroughly scraped. The cavity left after excision of the diseased area may be swabbed with some strong antiseptic. Fresh air and sunshine, combined with stimulation and tonics, are also called for.

SUNSTROKE.—The patient's clothing must be loosened, and he should be laid on his back in a cool, shady place. Iced water may be dashed over his face and an ice-bag applied to the head. A hypodermic injection of strychnine (gr. $\frac{1}{60}$) is often valuable. When the temperature is reduced the patient must be put to bed between blankets and kept very warm. He may also be given brandy or whisky. Subcutaneous injections of warm normal saline solution have also been successfully employed.

SYCOSIS.—The application of the Röntgen rays and the use of vaccine therapy are the two best measures in severe cases. In milder forms of the disease the hair may be shaved after removing all crusts and débris. An ointment containing equal parts of ung. hydrarg. ammon. and ung. sulphuris may then be well rubbed in night and morning.

SYPHILIS, ACQUIRED.—Treatment, to be successful, must be carried out for three or four years. It ought to be impressed on the patient in every case that he must continue the treatment for a considerable period after all manifestations of the disease are gone. In no case must a syphilitic patient be allowed to marry until four years have elapsed from the time of primary infection, and even then marriage is only

permissible if thorough treatment has been carried out during the interval. The highly infectious nature of the disease should always be put before the patient. He should, therefore, refrain from sexual intercourse, must use his own table utensils and toilet articles, should not be allowed to kiss any one, and ought to keep his mouth and teeth scrupulously clean.

During the primary and secondary stages mercury is the drug which should always be employed. It may be given by the mouth in the form of pills composed of hydrarg. \bar{c} . cret. gr. j, ferr. sulph. grs. ij. One of these should be taken thrice daily. If preferred the liq. hydrarg. perchlor. may be administered in doses of $\bar{3}$ ss to j three times a day. Inunctions of mercury are often very useful, and they have the advantage of bringing the patient very rapidly under the influence of the drug. One drachm of ung. hydrarg. combined with an equal amount of adeps lanæ hydros. may be rubbed into the skin once daily for a week, using the open palm, and continuing the inunction for at least a quarter of an hour. Every third day the patient should have a warm bath. A three-weeks' course of inunction is usually sufficient, as if continued too long it may result in cutaneous irritation. The subcutaneous injection of mercury is painful and troublesome, and possesses no particular advantage save that it is a somewhat more rapid method of cure. For injection the biniodide is to be preferred. A 1 per cent. solution may be used by dissolving the mercurial salt in distilled water containing an equal amount of sodium iodide. The injections are made into the gluteal region every second or third day. During the mercurial treatment the greatest attention must be paid to the mouth, as mercurialism with profuse salivation is a very troublesome complication.

Intravenous injections of kharsivan, neokharsivan, or galyl may be given in suitable cases. These injections are a valuable adjunct to the ordinary medicinal treatment.

During the treatment of this disease the patient must guard against cold, and wear warm clothing, take simple, nourishing food, have open-air exercise, and also avoid alcohol and tobacco. A sea voyage is frequently beneficial.

In the third stage and for the tertiary manifestations iodide of potassium is the drug to employ. It may frequently be combined with liq. hydrarg. perchlor. with advantage. Doses of 10 to 30 grains well diluted may be taken thrice daily, the tendency to iodism being considerably diminished if spt. ammon. arom. is prescribed along with the iodide. Iodipin acts better than pot. iod. in some cases. This may be given in capsules of 30 minims.

The local treatment of a syphilitic sore consists in applying ung. hydrarg. ammon., or bathing and then dusting over with hydrarg. subchlor. Mucous syphilides in the mouth or throat are best treated by painting them over with a 5 or 10 per cent. solution of protargol. When they occur about the anus or in the genital region, ung. hydrarg. ammon. may be employed, or they may be dusted over with calomel. Gummata call for internal rather than for external treatment, but when they show ulcerative changes the application of lotio hydrarg. nigr. is indicated. Too much reliance should not be placed on the Wassermann reaction in the diagnosis of syphilis.

SYPHILIS, CONGENITAL. — Whenever possible breast feeding should be encouraged. If artificial feeding has to be resorted to, the infant's chances of surviving are very considerably diminished. Internally mercury may be given in the form of hydrarg. \bar{c} . cret. in doses of $\frac{1}{4}$ to $\frac{1}{2}$ grain thrice daily. If this causes diarrhoea, then inunctions of ung. hydrarg. may be substituted. This should be prescribed with an equal amount of adeps lanæ hydros. Of this ointment half a drachm may be gently rubbed into the abdomen, inner sides of the thighs or axillæ, once daily, care being taken not to produce an intractable dermatitis. The

mercurial treatment must be carried out for at least six months, but in many cases a year's treatment is required. Rashes rarely call for local treatment, but sometimes it is advisable to order a very weak mercurial ointment. Injections of galyol or of neokharsivan are often most beneficial.

TABES DORSALIS.—(See LOCOMOTOR ATAXY.)

TABES MESENTERICA.—(See TUBERCULOSIS, ABDOMINAL.)

TACHYCARDIA, PAROXYSMAL.—If there is any obvious cause, this should be seen to. During the attack it is beneficial to keep the patient at rest in bed, to apply cold to the chest, and to give a hypodermic injection of morphia (gr. $\frac{1}{4}$). Sod. brom. in 30-grain doses is sometimes of value. In other cases tinct. digitalis in full doses acts better. In others, again, diffusible stimulants give satisfactory results. As a rule, however, patients suffering from this condition demand very close observation before a suitable remedy can be selected in any particular case.

TAPEWORM.—(See INTestinal PARASITES.)

TETANUS.—Prophylaxis by attention to the asepticity of wounds is most important. The patient must be kept in bed. The room should be darkened, and away from every possible source of noise. A mixture of sod. brom. and chloral hydras may be given, or chloral may be injected into the rectum. Rectal feeding has often to be resorted to. If there is very severe spasm then chloroform must be administered. Antitoxic serum is often successfully used. A dose of 5 c.c. may be injected into the brain substance on each side after making a trephine opening over the frontal regions. In milder cases 10 c.c. of the serum may be injected subcutaneously, and the injection repeated at intervals.

TETANY.—Fresh air and suitable food are called for. Patent "foods," condensed and "treated" milks must be stopped at once. A grain of hydrarg. \bar{c} . creta may be ordered to be taken at bedtime. Hot baths, followed by cold douching of the spine, are very beneficial. In

severe cases lavage of the stomach may be tried, for, as we have personally experienced, infantile tetany is sometimes associated with gastrectasis.

When tetany occurs in the adult it may result from dilatation of the stomach, which will require suitable treatment. The administration of sod. brom. with chloral hydras may be kept in mind, and lavage resorted to if thought expedient. In these cases the prognosis is not always favourable, and consequently the patient should be kept very quiet in bed, and stimulated judiciously if heart failure threaten.

THREAD-WORMS.—(See **INTESTINAL PARASITES.**)

THROMBOSIS, CEREBRAL.—(See **APOPLEXY.**)

THROMBOSIS, VENOUS.—(See **PHLEBITIS.**)

TICS (HABIT-SPASMS.)—All sources of local irritation must be removed. Change of air, rest from work, and the administration of tonics are called for. Arsenic and bromides do good in some cases. The patient should be told to endeavour to control the movements, and encouraged to do so in every possible way.

TINEA CIRCINATA AND TONSURANS.—(See **RINGWORM.**)

TINNITUS AURIUM.—In order to treat this condition satisfactorily its causes must be borne in mind. One of the commonest is the presence of cerumen, which requires removal by softening and syringing. It is also a very common symptom in patients suffering from anæmia or from neurasthenia. It may form an epileptic aura, or it may be caused by spasm of the muscles. Gastro-intestinal and hepatic disorders are sometimes a cause. Tinnitus is also a prominent symptom in patients suffering from Menière's disease. The actual treatment consists in administering bromides, sal ne purgatives, stomachics, or tonics, according to the condition which causes it.

TONGUE, ULCERS OF.—If syphilitic in origin mercury should be given (see **SYPHILIS**), and the ulcers painted locally with a 5 per cent. solution of protargol. In the case of tuberculous ulcers a 20 per cent. solution

of lactic acid acts best. Ulceration due to defective teeth demands extraction of the offending tooth and the local application of a 5 per cent. protargol solution. Ulcers of the tongue are not uncommon in patients suffering from dyspepsia. Mouth washes of pot. chlor. and the local application of glycerin. acid. boric. are indicated, and the internal administration of alkalis, such as sod. bicarb. combined with bismuth and pulv. rhei.

TONSILLITIS.—In the acute follicular variety the patient should be kept in bed and cold compresses applied externally to the throat. Ice may also be given to suck. At the outset 5 grains of calomel should be administered, followed by a saline aperient. The tonsils may be painted locally with glycerin. acid. boric. Gargles are not so useful. Salol may be given internally in 10-grain doses every four hours for six doses. If the temperature is high 2 minims of tr. aconiti should be administered every hour. The food must be liquid and consist of beaten-up eggs, gruels, milk, and meat-juice. In all cases the association of inflammation of the tonsils with rheumatism, gout, and the infectious fevers should be borne in mind.

In chronic enlargement of the tonsils, apart from operative measures, painting with iodine may be tried. The best formula to use is one containing iodi grs. viij, pot. iodid. grs. xv, and glycerin. ʒj.

TOOTHACHE.—Extraction of the offending tooth is usually the best form of treatment, but short of this palliative measures may be tried. The cavity of the tooth should be dried and then a pledget of wool inserted into it, the wool being soaked in a mixture of equal parts of camphor and carbolic acid. In some cases the local application of tinct. iodi to the surrounding gum affords marked relief.

TRYPANOSOMIASIS.—Undoubtedly the best form of treatment consists in injecting a solution of atoxyl. A freshly made 10 per cent. solution in normal saline fluid is employed. The solution must be carefully sterilised before use, and it is injected warm into the

gluteal region. Twenty minims are injected every other day, and the dose gradually increased until definite effects are observed. The treatment should be kept up, with intermissions, for at least a year after all symptoms have disappeared. Injections of dilute antimonial solutions have also been successfully employed, but these are painful, and are apt to cause local gangrene. The patient must be kept very clean and warm. As the disease is essentially a chronic one a nutritious diet is absolutely necessary.

TUBERCULOSIS, ABDOMINAL.—The treatment of tuberculous peritonitis consists in keeping the patient in bed as long as he is feverish. Fresh air, however, is essential, and it is usually advisable to have the bed in the open air. Diet is equally important. Provided there is no ulceration of the intestine and the patient's digestion is otherwise good, he should have a liberal amount of solid food, including fats. If these provoke vomiting and diarrhoea, a milk diet should be maintained; and where intestinal ulceration is actually present such a diet is the only available one. Inunctions of ung. hydrarg. or of ung. hydrarg. oleat. are very beneficial, more especially perhaps in the case of children. In cases presenting a considerable degree of ascites with no dense adhesions laparotomy is frequently of service. It is not enough, however, to simply drain the peritoneal cavity; the primary focus of disease must be sought for and removed as well. It is just in this class of case that tuberculin seems to prove of most value. In fact it is deserving of trial in many cases of abdominal tuberculosis. The initial dose for an adult should be 10000 to 5000 mgrm. At first the injection may be given once in three weeks, later once a fortnight, and finally every ten days. It is absolutely essential that the patient's general condition, and especially his temperature, be watched carefully during this course of treatment, which may require to be carried out over a somewhat lengthy period. When the patient is able to absorb fats, cod-liver oil with hypophosphites or malt

extract should be prescribed. Iron is of special advantage in cases presenting marked anæmia.

TUBERCULOSIS, GLANDULAR.—Fresh air, good food, and the administration of cod-liver oil combined with external applications of tr. iodi or of ung. hydrarg. oleat. may succeed in dispersing tuberculous lymphatic glands. All forms of local irritation should be sought for and removed, more especially carious teeth and enlarged tonsils. Operation, however, should not be delayed too long, as the glands, once they begin to soften, disintegrate rapidly, and, moreover, delay may cause dissemination of the disease to other parts.

Tuberculin injections are sometimes beneficial. Twice weekly a dose of $\frac{1}{50000}$ mgrm. may be given to a child of five years, and gradually increased, provided no marked rise of temperature results. When the glands soften and show signs of suppuration, incision, or excision and drainage, must be resorted to. A prolonged residence by the seaside is to be strongly recommended, especially in the more severe forms of glandular tuberculosis.

TUBERCULOSIS, PULMONARY.—As open-air treatment is undoubtedly the great essential, this may be considered in the first place. If the patient cannot be sent to a sanatorium, steps must be taken to carry out the open-air treatment at home. In any case he should be kept under proper medical supervision while treatment is being enforced. The part of the house occupied by the patient must be well sheltered from wind and have a sunny exposure. The house, if possible, should be as far as possible away from any thoroughfare, so as to avoid dust, which is always injurious. No one should occupy the patient's sleeping apartment save himself. This room should have no carpet, and only such furniture as is absolutely necessary, and this should be of the simplest form possible. The window or windows must be capable of being widely opened, and the room ought always to have a fireplace. Candles will be found the best illuminant where electric light is not available.

Every day the bedroom and its furniture should be wiped over with a damp cloth, as dust is to be avoided at all costs. When the patient is able he should be out of doors as much as possible, and he should be encouraged to take a certain amount of suitable exercise every day.

The clothing should be warm, but not too heavy. It ought to be loose, especially about the chest. Diet requires special attention. When the patient is able to take a fair amount of food, the temperature is more likely to remain normal. A considerable amount of proteid and fat should be included in the diet. The following outline diet list may be taken as a general guide :—

- 8 A.M. Bread and butter ; honey or marmalade ; tea, coffee, or cocoa ; bacon and eggs ; one pint of warm milk.
- 10.30 A.M. Cold meats ; bread and butter ; fruit.
- 1.30 P.M. Soup ; fish ; meat or chicken ; vegetables ; pudding ; dessert.
- 4 P.M. One pint of warm milk ; bread and butter.
- 7 P.M. Soup ; fish ; meat or chicken ; potatoes ; bread and butter ; one pint of warm milk.

As regards alcohol, a glass of claret, Beaune, or whisky and soda water may be allowed at the evening meal. Tobacco in the majority of cases had better be forbidden altogether.

Climatic treatment is also very beneficial. Thus a sea voyage is advantageous in the early stages, but advanced cases or those suffering from hæmoptysis should not be advised to attempt it. Neither should such patients be sent far from home. For the earlier cases the south of England (Bournemouth, Dawlish, and Falmouth) is to be recommended. South Africa and Australia are also frequently selected with advantage, while such Continental resorts as Davos afford special inducements which render them highly advantageous.

Treatment by means of tuberculin may be tried in suitable cases, but not in all. It may be employed in

the earlier stages, and in cases which show no marked rise of temperature. In the ordinary chronic variety of pulmonary tuberculosis the initial dose may be $\frac{1}{20000}$ mgrm., gradually increased at intervals up to $\frac{1}{2000}$ mgrm., but the amount injected should under no circumstances be increased until the former dose is tolerated without reaction. On the day of injection and also on the following day the patient ought to remain in bed. The injections may be given once a week. If care is taken the remedy can do no harm, but if it is used indiscriminately it may bring about very undesirable results.

The drugs which have been used in the treatment of pulmonary tuberculosis are very numerous. The best of all is creosote. Beechwood creosote may be administered in increasing doses, commencing with 3 minims. It is best given in capsules after meals. Guaiacol carbonate may also be tried in 10-grain doses. Ichthyol is another remedy which sometimes proves temporarily efficacious in certain cases. It is best given in 5-minim capsules. Cod-liver oil, iron, and hypophosphites are useful as subsidiary tonics.

A list of rules should be handed to every patient for his guidance, having special reference to the dissemination of infection. The following may be taken as a specimen list :—

1. The spit is highly infectious. You must, therefore, spit only into a proper receptacle containing a disinfectant. This must be thoroughly cleansed from time to time.

2. When out of doors do not spit on the street, but use an old handkerchief which can be boiled when you return home.

3. Never kiss any one.

4. Use your own drinking cup, plate, spoon, etc.

5. Always sleep alone.

6. Keep the windows of your room widely open by day and by night.

7. Do not allow dust to accumulate in your room. Have it removed by means of a damp cloth.

Special symptoms may call for active treatment. Of these cough is often one of the most troublesome. The cause of this should always be ascertained, as it is not always entirely due to pulmonary irritation. In any case it is rarely good practice to order sedative cough mixtures or drugs, such as syr. codeinæ phosph. and the various elixirs with which the market is flooded. A glass of warm milk or some such simple measure must be tried first. The cause must also be treated, be it associated pleurisy or reflex irritation from the throat. Only as a last resource may be tried a mixture such as the following :—

R	Liq. Morphin. Hydrochlor.	.	.	℥36.
	Acid. Hydrocyan. Dil.	.	.	℥24.
	Syr. Scillæ.	.	.	℥ij.
	Inf. Rosæ Acid. ad	.	.	℥iij.
	M. ut Ft. Mist.			

Sig. A dessertspoonful to be taken when the cough is troublesome.

Hæmoptysis has been already considered in its appropriate place (*q.v.*).

Night-sweating is best treated by fresh air and abundant food. Failing these measures a pill containing quin. sulph. grs. ij and extr. bellad. sicc. gr. $\frac{1}{4}$ may be given at bedtime. In some cases sponging with eau-de-Cologne and tepid water is efficacious.

Diarrhœa is a troublesome complication. Attention to the diet, and the administration of pil. plumbi \mathfrak{c} . opio (grs. v), or the use of suppos. morphinæ (gr. $\frac{1}{4}$) in severe cases, may be tried.

Dyspepsia may occur in two forms, either as a condition of hyperchlorhydria or of atonicity. In either case attention to cleanliness of the mouth and teeth should be enjoined. The patient should rest before and after meals. Alcohol is often beneficial, and the food, whenever possible, should be solid. A mixture of bismuth and hydrocyanic acid may be tried where hyperacidity exists, while in the atonic form of dyspepsia an

acid mixture containing strychnine often proves helpful. In all cases constipation is to be avoided, and fresh air treatment carried out. Anodyne drugs containing opium and its alkaloids must be stopped if these are being taken, as they are undoubtedly a very fruitful source of dyspepsia in patients suffering from pulmonary tuberculosis.

Debility and anæmia frequently demand careful treatment. In such cases malt with cod-liver oil, iron, arsenic, and the hypophosphites must be thought of, while fresh air, suitable food, and open-air exercise usually bring about an improvement in the patient's general condition.

TYPHOID FEVER.—The patient must be kept at absolute rest in bed. He must not be allowed to sit up even to evacuate the bowels or the bladder. The bed should be a single one, so that the nurse may be able to get at the patient quite readily. The bed-clothes must be warm, but not too heavy. It is a mistake to order a patient's removal to hospital after the first week of the disease, as such a course involves risks of a very serious nature. The essentials in the treatment of typhoid fever are careful medical supervision, suitable dieting, and proper nursing. It is foolish in the extreme to trust too much to the nurse's statements as to the patient's well-being, the character of the stools, and other important points. The medical attendant must see to all these matters himself, as nurses frequently err, and the patient's life may thereby be endangered.

Milk is usually stated to be the only correct form of nourishment. Unfortunately it is often badly tolerated by the patient. It should be given diluted with one-fourth part of water. From 2 to 3 pints of milk may be given in the twenty-four hours in feeds of from 8 to 10 ounces. In addition the patient is allowed one pint of mutton- or chicken-tea. With regard to the amount and kind of food to be given two factors must be carefully considered, namely, the

number of stools and the presence or absence in them of undigested food particles, especially milk curds. When there is diarrhoea it is well to stop everything except milk. When curds are present in the stools the milk should be given with arorwroot or Horlick's malted milk, or Mellin's food may be tried. Thirst is often troublesome, and accordingly the patient may have lemon water or very weak tea. No solid food should be allowed until the temperature has been normal for ten days. The patient may then have farinaceous foods, and custards, and later beaten-up eggs, then pounded chicken, always watching carefully for evidences of any gastro-intestinal symptoms. Throughout the entire course of the disease the mouth should be kept very clean and moist, as a dry mouth and tongue seriously interfere with the patient's comfort as well as with his digestion, and appetite for food.

Alcohol is usually forbidden. Probably it is unnecessary in cases of average severity. On the other hand it ought to be given to patients who are very feeble, and also to those who have been accustomed to its use while in health. The condition of the heart is the principal guide as to the need for alcoholic stimulation in any given case. From a teaspoonful to a table-spoonful of good brandy may be given three times a day, or even at more frequent intervals in desperate cases.

While a milk diet is usually adopted, it is only fair to mention that excellent results have been obtained from what is known as the milk-free fluid diet, combined with rectal irrigations. On the first day of treatment, according to this method, nothing but plain cold water is given. From the second day onwards half a pint of strained barley soup, containing the extract of half a pound of meat and the yolk of a fresh egg, is given every three hours, five times a day. From the fourth day onwards strained lentil or potato soup with rice is added. At the end of the first week a little dry toast may be given with the soup.

Orange juice in water should be taken thrice daily, and the patients persuaded to drink cold water during the day and night. Before every meal 15 minims of dilute hydrochloric acid may be administered. Under this form of treatment alcohol is unnecessary. The results claimed are that nausea, headache, insomnia, tympanites and diarrhoea disappear after two or three days. The temperature falls to normal within twelve days, while complications very seldom develop. The milk-free fluid diet, therefore, seems to shorten the attack, ameliorate the symptoms, prevent complications, and consequently reduces the mortality.

Another special method may be mentioned. This is what is known as the cold bath treatment. To be successful it should be commenced early and before dangerous symptoms assert themselves. The temperature of the patient must be taken in the rectum every four hours, and on each occasion when it is over 102.5° F. a bath is to be ordered at a temperature of about 75° F. The patient remains in the bath for a quarter of an hour. In some cases it is advantageous to cool the water in the bath down to about 68° F. by means of ice after the patient has been immersed. This mode of treatment results in marked improvement in the circulation, and prevention or relief of insomnia and headache.

Serum and vaccine therapy require no detailed description, but these additional measures should be borne in mind, although they are still more or less on their trial.

Certain complications must be briefly referred to. Diarrhoea is best treated by careful attention to the diet, and small doses of opium. Constipation demands the occasional use of warm olive oil enemata. When perforation occurs immediate laparotomy offers the only chance of success. In cases of hæmorrhage the patient must be kept very quiet. All food should be stopped and a 5-grain pill of lead and opium ordered. Transfusion with normal saline fluid will be necessary

if there is marked collapse. In cases associated with ulceration of the colon and consequent diarrhœa the diet should be very carefully regulated, and small doses of opium combined with fairly large amounts of bismuth prescribed. Heart failure requires treatment with ether and strychnine. Pulmonary symptoms are indications for the exhibition of alcohol, and the application of mustard to the chest. Headache and delirium are markedly relieved by cold sponging, while insomnia may be treated by means of opium, chloralamide (grs. xv) or bromides.

Disinfection of the stools and urine must be carefully carried out, while soiled linen and bed-clothes ought not to be allowed to lie about.

TYPHUS FEVER.—The patient's room should be large and kept well aired, as fresh air is of very special importance in the treatment of this disease. The bladder must not be allowed to become over-distended, and the skin should be bathed with methylated spirits daily in order to prevent bedsores. Diet must be liquid at first ; later the patient may be put on ordinary light food, consisting of farinaceous puddings, custards, eggs, fish and chicken. Tepid sponging is the best antipyretic measure. Insomnia may be treated by means of chloralamide (grs. xv) or bromides. The heart must be carefully watched, and the patient judiciously stimulated if need be.

URÆMIA.—(See NEPHRITIS, ACUTE.)

URTICARIA.—The cause must be sought for in every case. Unless this is done treatment will usually prove unsuccessful. The relation of this condition to external parasites should be remembered. These are often the cause in children, and are undoubtedly the source of many chronic cases of urticaria. Otherwise the condition may be due to dietetic errors, constipation and gout. In cases due to parasitic irritation hot baths, followed by inunctions with dilute ung. sulphuris and attention to the body- and bed-clothes, will bring about

a rapid cure. In other cases warm alkaline baths and the administration of alkalis may be tried. Constipation must be remedied, if that exists, by means of saline aperients. In some of the more chronic cases ichthyol may be tried in doses of 5 to 10 minims. In not a few cases the condition shows little or no improvement under any recognised method of treatment.

VARICELLA.—While this disease usually runs a very simple course, we have no right to assume this. Accordingly instructions must be given in every case for the patient to be kept warm in bed on light diet. The pocks may be covered with any mild antiseptic ointment, and the patient prevented from scratching them. In neglected cases impetigo or even a gangrenous condition of the skin may result, while other serious complications are not unknown. In every case the patient should be isolated for three weeks.

VERRUCÆ.—The application of solid silver nitrate or of glacial acetic acid may be tried. Sometimes the internal administration of liq. arsenicalis is beneficial. In obstinate cases carbon dioxide snow is highly successful. It should be borne in mind that warts are undoubtedly infectious.

VERTIGO.—The treatment will depend upon the cause of the condition, be that anæmia, cardiac or hepatic disease, dyspepsia, constipation, cerebral affections, eye or ear troubles. Common causes of vertigo which are frequently overlooked are the presence of cerumen, and the more serious condition of arteriosclerosis. In any case vertigo is merely a symptom, and the treatment, therefore, consists in attending to the cause.

VOMITING.—This may be a symptom of affections of stomach, kidney, brain, heart, and other organs. It also occurs at the commencement and during the course of certain infectious diseases. It is common in pregnancy, and is frequently met with in infants who are improperly fed. An important cause of vomiting, and

one which must never be overlooked, is strangulated hernia. The treatment of vomiting, when due to the conditions mentioned, will be found under their appropriate headings. It is necessary, however, to refer more particularly to two special varieties of vomiting.

The *vomiting of pregnancy* should always suggest an examination of the urine. A careful inquiry as to other conditions, such as gastric ulcer, must, however, be made. Rest should be enjoined, and a mixture of bismuth and acid. hydrocyan. dil. prescribed. Constipation may require attention. *Sea-sickness* is particularly troublesome. The voyager should lie down at once when he goes on board the boat, and keep himself warm. A warm drink is sometimes helpful, but in other cases this only aggravates the condition. Some people derive benefit by taking sips of soda-water, while others find 15 grains of sod. brom. of considerable value. There is, in fact, no single reliable remedy.

WHOOPIING COUGH.—(See PERTUSSIS.)

WORMS.—(See PARASITES, INTESTINAL.)

WRITER'S CRAMP.—For at least three or four months it will be necessary for the patient to cease writing with the affected hand. He may, however, do typewriting. Dumb-bell exercises are helpful. If there is much paralysis present, then massage and galvanism must be resorted to. Tonics and change of air are additional measures which may be thought of.

YELLOW FEVER.—When an epidemic breaks out on board ship it is essential that cold latitudes should be sought. The patient must be isolated, kept in bed, and carefully nursed. Food ought to be fluid, to be given cold and in small quantities. Calomel may be administered at the outset, and a simple diaphoretic mixture prescribed. The heart may require stimulation. Serum therapy has sometimes been successfully employed both as a curative and as a prophylactic measure.

APPENDIX ON DIET

PRINCIPLES OF INFANT FEEDING.—In every case breast-feeding is the ideal method. Unfortunately it cannot always be adopted. At the same time no infant should ever be taken off the breast without a valid reason, and until it has been ascertained that regularity as to nursing had been observed.

During the first month the infant should be fed every two hours, from then till the end of the third month the breast should be given every two and a half hours, and from the end of the third to the end of the ninth month every three hours, when the infant should be weaned. Each nursing occupies from fifteen to twenty minutes, and if necessary the infant must be waked up when the period for nursing comes round. One feed during the night is usually sufficient, that is between 11 P.M. and 5 A.M.

The infant, when being weaned, may be put on equal parts of cow's milk and water, the amount of water being gradually lessened until pure milk is given. In any case the change from breast milk to that of the cow should never be sudden, otherwise gastro-intestinal troubles are sure to arise. When the child has become accustomed to undiluted cow's milk, a little well-boiled oat-flour and milk may be given once a day until the end of the first year, when other articles of diet may often be added with advantage.

Artificial Feeding.—The only substitute for breast milk is cow's milk suitably diluted. If this fact were more generally recognised we would have fewer cases of rickets and a great diminution in the amount of gastro-intestinal troubles amongst infants for which artificial foods are so largely responsible. The bottle selected must be of the simplest possible kind, with a rubber teat over the end. The hole in the latter ought merely to

allow the milk to drop through. No long tube or screw arrangement must be permitted, as these act as harbourers of germs. The infant must be fed regularly at the intervals already mentioned. The feeding-bottle ought to be kept scrupulously clean, and the mother or nurse must never put the teat into her own mouth before offering it to the baby.

The dilutions and amounts for each feed are roughly as follows :—

	Milk	Water.
	Tablespoonfuls	Tablespoonfuls.
First month .	1	2
Second „ .	2	2
Third „ .	3	3
Sixth „ .	9	3
Ninth „ .	12 to 16	—

It is sometimes advisable to add a half or even one teaspoonful of cream to each feed, especially if the infant is at all constipated. A level teaspoonful of plain white sugar or of sugar-of-milk may also be added. The milk should be brought to just short of boiling. It must never be boiled, as this certainly interferes with its nutritive properties. At the same time the risks of tuberculous infection must be kept in mind, and the purchaser should see to it that he is supplied with pure milk. At present, however, this is very difficult to obtain in certain parts of this country. “Treated” milks are not good. They merely encourage dairy farmers to put impure milk upon the market. Condensed milk is poor in fat, and is only useful as a temporary mode of feeding when ordinary cow’s milk is badly borne. Diluents such as barley-water and lime-water are not to be recommended, plain water being infinitely better. In fact, the simpler the composition of the milk mixture the more likely is it to prove satisfactory. For this reason the American method of

percentage feeding is not good. Dried milk is not a suitable form of infant food, and very often produces symptoms of rickets in infants fed on it. It is only useful as a temporary expedient in certain cases.

When cow's milk is not digested condensed milk may be tried. Whey is another valuable substitute. Peptonised milk may also be employed. The peptonisation should be carried out for about twenty minutes, and the milk suitably diluted afterwards. The addition of sodium citrate to milk is often advised; and this may be kept in view in certain cases of difficult curd-digestion.

DIET DURING THE SECOND YEAR.—Milk should still enter largely into the child's dietary. In addition, however, the following may be allowed: oat-flour, softly boiled eggs beaten up with bread-crumbs, bread or potato and gravy, bread and milk, farinaceous puddings, one of the artificial foods. Towards the end of the second year the child may have bread and butter, and a small amount of ripe fruit.

DIET AFTER THE SECOND YEAR.—The following articles may now be given: milk, oat-flour, eggs, beef or mutton, chicken, white fish, potatoes, farinaceous puddings, cauliflower, spinach, fresh fruit, bread and butter or marmalade. In all cases it is advisable to avoid too much sugar and starch in the diet, while salted foods of all kinds should be forbidden. Other articles of food which are unsuitable may be mentioned, viz., tea, coffee, new bread, pastry, hot buttered toast, cheese, and pickles. Eating between meals is a habit which cannot be too strongly condemned.

VARIOUS FOODS: THEIR COMPOSITION AND NUTRITIVE VALUE.—Milk is in itself a perfect food. It is not, however, an ideal food for healthy adults. On the other hand, it is very valuable in disease, and especially in conditions associated with pyrexia. Milk contains from 3·5 to 4 per cent. of fat. It also contains albuminoids, of which the chief are casein, lactalbumin and globulin. These constitute the flesh-forming

ingredients of milk. A sample of good milk should yield from 12 to 15 per cent. of cream, but anything over 10 per cent. is usually regarded as quite satisfactory.

Cheese.—This is in reality the albuminoid constituents of milk which have been separated out by means of rennet. Cheese is, therefore, a valuable flesh former, and is undoubtedly a very nutritious article of diet. It usually contains from 10 to 20 per cent. of fat.

Butter.—A good butter contains a little over 80 per cent. of fat. It is, therefore, essentially a heat producer. When taken along with other foods it becomes a very valuable form of nutriment, and one which is very readily digested. Patients who are unable to take fat may be given thin slices of bread thickly spread with butter. They can often take this when they cannot or will not eat the fat of meat.

Eggs.—These constitute a very valuable food. It is a mistake to suppose, however, that every one can digest them. There are many people who cannot eat eggs without having some gastro-intestinal derangement in consequence. There are some, too, who are able to take them in the later part of the day, although they are unable to do so in the morning, and *vice versâ*. The white portion contains 12 per cent. of protein, whereas the yolk contains 15 per cent., and 33 per cent. of fat. The yolk is also rich in iron, and accordingly eggs are of special value in cases of anæmia. They should be avoided, however, in kidney diseases, and in affections of the stomach. Raw eggs are of special service when mixed with milk in certain cases in which only liquid nourishment can be taken, as, for example, in acute tonsillitis. Hard-boiled eggs are very indigestible, and tend to cause constipation. Whereas a raw egg can be digested in an hour and a half, it takes at least four hours to digest one which has been hard-boiled. The same remark applies to fried eggs. Scrambled or poached eggs, or eggs made into custards and omelettes, however, are much more readily digested and form useful varieties.

Meat.—It is indisputable that too much meat is eaten in this country. To put the matter briefly, little exercise should mean little meat, so that after middle life the consumption of red meat should be reduced very considerably. According to Pavy the composition of various meats is as follows :—

	Lean Beef.	Fat Beef.	Lean Mutton.	Fat Mutton.	Veal.	Pork.
Nitrogenous Matter .	19·3	14·8	18·3	12·4	16·5	9·8
Fat . .	3·6	29·8	4·9	31·1	15·8	48·9
Salts . .	5·1	4·4	4·8	3·5	4·7	2·3
Water . .	72·0	51·0	72·0	53·0	63·0	39·0

Meat should never be over-cooked, as it then becomes more indigestible. Salt meat is not very digestible, and is to be specially avoided by those suffering from gastric or renal troubles. Meat which has been boiled or re-cooked is not only indigestible, but very devoid of nutrient properties. Meat intended for invalids should be either roasted or grilled, never stewed, fried, or boiled ; and it should always be underdone. Mutton is more easily digested than beef, and is always to be preferred for invalids and convalescents.

Fish.—Fish intended for invalids should always be boiled or steamed, never fried. Smoked and cured herring are not suitable, while salmon and mackerel are also better avoided. Fish should never be eaten unless it is in season. The varieties most suited for invalid dietary are whiting (in season from October to March), sole (in season all the year), and haddock (in season from August to February). Oysters are very easily digested, but invalids should eat only the soft parts. Diabetics, on the other hand, should always be forbidden to eat this variety of shellfish.

Fowl.—Chicken forms an excellent invalid food. It may be prepared by roasting or boiling. The former

method of cooking renders it very palatable. It may be served either hot or cold. In certain cases it may be given minced up on dry toast.

Farinaceous Foods.—One of the most important of these is oatmeal, which contains nearly 65 per cent. of carbohydrates. It is also rich in protein material, while it contains a certain amount of iron. It is, therefore, of high nutritive value. For invalids especially it ought to be well cooked, so that the grains may be thoroughly disintegrated. Rice, which is a food substance of considerable value, contains about 80 per cent. of starch in a very digestible form. It forms a valuable substitute for potatoes when the latter disagree. Other farinaceous foods of service in invalid dietary are tapioca, sago, cornflour, arrowroot, farola, and semolina. Of these sago is one of the best, as it is also one of the most nutritious.

Vegetables.—Here vegetables, as distinct from farinaceous foods, will be referred to. Green vegetables such as cabbage, Brussels sprouts, lettuce and spinach contain little or no starch, and so, too, celery. Others contain a large amount of starch and sugar, such as potatoes, carrots, turnips, beetroot, peas and beans. The latter are apt to cause constipation and are less digestible than the simple green varieties. Tomatoes are not very easily digested, but are somewhat laxative. Leeks and onions are diuretic to a certain extent.

Fruits.—The most nutritious are those which contain the largest percentage of sugar. The chief of these are, bananas, figs, dates, prunes, and black grapes. Many fruits are also laxative, especially apples, figs, prunes, pears, oranges, and blackberries. Fruit should only be eaten when it is ripe and in season. Bananas are not very digestible, although statements to the contrary are frequently made. Cooking often renders fruit, which would otherwise be unsuitable, of value to the invalid. This remark applies to baked apples and stewed prunes. Other useful fruits for invalids are black grapes and oranges. Diabetics and gouty subjects should avoid

fruits altogether, with the exception perhaps of peaches and apricots, which contain little sugar. Grapes, apples, and strawberries, on the other hand, yield a fairly large percentage of sugar, as do also pears and gooseberries.

Reference must be made to nuts which, though not very digestible, are sometimes of value in cases of diabetes. Almonds are likewise of great service in this disease, as they contain no starch and a very small amount of sugar. Almond flour can be readily made into loaves, cakes, and biscuits, which form a pleasing variety in the monotonous dietary of the diabetic patient. It has been stated that walnuts are of service in overcoming chronic constipation. They are certainly very rich in fat, and this may account for their laxative property.

Predigested Foods.—These are frequently of considerable value in cases associated with feeble digestive powers. The agents employed are pepsin and the liquor pancreaticus. The bitter taste which is developed during the process of peptonisation may be largely prevented by bringing the food which is being prepared quickly to the boiling point.

Milk may be peptonised as follows: To 10 ounces of milk and half as much water 2 drachms of liquor pancreaticus are added, with a pinch of baking soda. The milk and water are first heated to 140° F. The peptonising agent and the soda are then added. The mixture is poured into a covered jug and kept in a warm place. After an hour and a half it must be boiled for five minutes, and is then ready for use.

A simpler method is to use zymine powders. Twenty ounces of milk are poured into a quart jar. Five ounces of cold water and a peptonising powder are added. The jar is now placed in water as hot as the hand can bear for half an hour, shaking occasionally. The milk is then ready for use. Beef-tea may be similarly peptonised.

BEVERAGES.—Water is, of course, the most valuable of all. It is a mistake to withhold it from patients

who complain of thirst. Even after abdominal operations a restless patient may be calmed by giving him a few sips of water without causing any injury. Aerated waters are often of great service in cases of illness, while Vichy and Apollinaris waters are of special use in gastric cases. They are very valuable as diluents of milk when the latter is badly borne, and also in cases of gout and rheumatism. Saline waters are used as aperients. They are best taken before breakfast. Their chief ingredients are the sulphates of sodium and magnesium.

Tea, coffee, and cocoa must be regarded as stimulants. The last-mentioned tends to produce constipation. Excessive tea-drinking leads to nervousness and indigestion. Black coffee is useful if taken after dinner as an aid to digestion, but is not permissible in the case of those who are at all dyspeptic. It forms a valuable stimulant to the heart, and is of service in cases of poisoning. Cocoa is only slightly stimulant and contains a large amount of fat. It is, therefore, nourishing to a certain extent.

Alcoholic beverages, when taken in moderation, are of value as aids to digestion ; while in cases of disease they serve as foods and stimulants. Alcohol is also a powerful diuretic. Alcohol should only be taken with meals or at bedtime, otherwise it is very likely to do harm. The elderly usually require a certain allowance ; young, healthy persons do not. In disease the most generally useful alcoholic stimulants are dry champagne, brandy, and whisky. The best wines for invalids, apart from champagne, are dry sherry, old port, Beaune, and good claret. Gouty and diabetic patients should generally be limited in their consumption of alcohol to whisky and claret. All forms of medicated wines should be avoided, and only in special cases should alcohol be ordered to female patients, as the alcohol habit is very readily induced in them. Malt liquors, namely, beer, porter, ale, and stout, have their use in cases of malnutrition, especially the last three. The average strengths of the more important alcoholic

beverages may be set down in round numbers as follows :—

PERCENTAGE OF ALCOHOL.

Brandy	50	Burgundy	10
Whisky	45	Hock	9
Port	20	Claret	8
Sherry	16	Ale and Stout	5 to 9
Champagne	12	Beer and Porter	2 to 5

METHODS OF COOKING.—The six methods of cooking will be briefly considered.

1. **Boiling.**—If it is the intention to retain the nutriment in the meat that is being cooked the latter should be placed in hot water, quickly brought to boiling point and kept at that temperature for a few minutes in order to coagulate the surface albumen. Thereafter the cooking should be conducted very slowly at a temperature of about 170° F. If, on the other hand, we wish to extract the nutritive principles from the meat, it should be first of all cut up into pieces and then placed in cold water. It must be brought to boiling point very gradually. In the preparation of soups this is the process to be adopted, and the boiling must be continued for a considerable period.

2. **Stewing.**—This process is one by means of which the juices of the meat are extracted. It is best conducted at a temperature of about 170° F. If the meat is prepared at a higher temperature it becomes very tough, hard, and indigestible.

3. **Roasting.**—In this method of cooking the object is to retain the juices of the meat. By a strong heat applied at first there is formed a layer of coagulated albumin on the surface, whereby the juices are retained in the interior of the meat. The temperature is then reduced to about 170° F.

4. **Grilling.**—This is merely a modification of roasting. It is a rapid method of cooking. Strong heat is applied

to a large surface. The best results, however, can only be obtained by using a proper grill.

5. **Frying.**—This is probably the worst method of cooking, as by this process meat is rendered very indigestible. Fat is necessary, and the heat applied is usually considerable, over 212° F. The fatty material penetrates the food that is being cooked, and thus makes it less digestible than when the other methods of cooking are employed.

6. **Baking.**—This closely resembles roasting, but the process is conducted in a shut-in oven, so that the volatile products cannot escape. The food thus cooked is thereby rendered richer, but very indigestible.

SPECIAL DIETARIES.—Considerable ignorance exists as to what is meant by the terms “rectal feeding,” “milk diet,” and “light diet.” A short reference to these will therefore be of service.

Rectal Feeding.—This may be regarded as the first stage in the dietary ladder. Probably it is unwise to think that the patient can obtain much nutriment in this way. The patient should lie on the left side with the buttocks somewhat elevated. The rectum must be empty and washed out with warm water an hour before the rectal feed is given. Feeds of 2 or 3 ounces may be given every six or eight hours. The rectal tube, properly lubricated, should be introduced at least 8 inches into the bowel and the enema should be given slowly. The patient must rest quietly afterwards. The temperature of the enema may be between 95° and 100° F. The following may be taken as examples of suitable nutrient enemata:—

- (1) The white of one egg beaten up.
 Half a teaspoonful of salt.
 Milk up to 4 ounces.
- (2) Liquid Peptonoids (Carnrick) ʒij.
 Milk ʒij.
 Salt ʒss.

The addition of 15 or 20 minims of tinct. opii to

the enema will favour its retention, but this addition should not be made unless it becomes absolutely necessary.

Milk Diet.—This consists solely of 4 to 6 pints of milk in the twenty-four hours. It is suitable for all diseases associated with febrile symptoms, and for renal affections.

Light Diet.—This is usually constituted somewhat as follows: For breakfast the patient has porridge and milk, tea or coffee with bread and butter. For lunch he has chicken soup or mutton broth, fish or chicken, potatoes and a milk pudding (ground rice, farola, semolina) or custard. Tea consists of weak tea or coffee with bread and butter. Supper should be a very light meal of bread and milk.

SPECIAL INVALID FOODS.—At the present time the number of these is simply bewildering to the average medical man. It must be admitted that very many of them are practically not foods at all. Only the more important will be referred to here. As a general rule it is an absolute waste of money to purchase invalid foods of an expensive nature, when more nutriment is to be obtained at a much cheaper rate from ordinary articles of diet.

Meat-Juices.—These need only be mentioned by name. Thus we have Bovril, Lemco, Oxo, Brand's Beef-Jelly, and Brand's Chicken-Jelly. The first three are all equally good, the only difference being one of flavour. The two last-mentioned are particularly valuable in cases of sickness, as they can be taken cold or even iced.

Plasmon.—This is a white powder, and is really an albuminous food prepared from milk. It may be given in soups. There are also plasmon biscuits, cocoa, and oatmeal, the latter being much more palatable than ordinary oatmeal.

Mellin's Food.—This consists of malted cereals. It forms a useful addition to warm milk, and is an excellent supper dish for invalids.

Horlick's Malted Milk.—This preparation closely resembles Mellin's Food, but it contains dried milk in addition to malted cereals. It is of special service in cases associated with gastro-intestinal symptoms.

Benger's Food.—This is made from wheat-flour which is predigested by means of pancreatic extract. It is prepared by dissolving half an ounce of the powder in 2 ounces of cold milk. Ten ounces of boiling water are then slowly added. The mixture is now boiled for about twenty minutes. This food is very suitable for cases of gastric ulcer and cancer.

For all ordinary purposes the above-mentioned invalid foods are sufficient. It would serve no useful purpose to refer to the others which are so largely advertised, not only in medical journals but also in the lay press. As already pointed out such foods are, as a rule, not worth the money asked for them. Medical men should exercise more discretion than is at present the case in recommending some of these to their patients.

Note on Cod-Liver Oil.—As this is such a valuable food in a variety of conditions, such as tuberculosis, chronic bronchitis, chronic rheumatism and rickets, it seems a pity that patent preparations of it are so largely prescribed. There is no substitute for cod-liver oil. Thus it is a mistake to suppose, as some do, that cream is equally good. Petroleum emulsion, moreover, can never supplant cod-liver oil, as the former, being prepared from a mineral oil, cannot possibly be absorbed. It is, therefore, a serious therapeutic error to prescribe it instead of cod-liver oil for conditions in which the latter is indicated.

TABLE OF COMPARATIVE DIGESTIBILITY.

(Modified from Gilman Thompson.)

- | | |
|-----------------------|-----------------------|
| 1. Oysters. | 5. Boiled chicken. |
| 2. Soft-boiled eggs. | 6. Lean roast beef or |
| 3. Sweetbreads. | beefsteak. |
| 4. Boiled white fish. | 7. Scrambled eggs. |

TABLE OF COMPARATIVE DIGESTIBILITY (*continued*).

8. Roast mutton.	15. Veal.
9. Well-frizzled bacon.	16. Ham.
10. Roast chicken.	17. Rabbit.
11. Tripe.	18. Salmon.
12. Liver.	19. Herring.
13. Roast Lamb.	20. Pork.
14. Mutton cutlets.	

The first mentioned in the above list is the most digestible, the last named is the least. The others are placed, as far as possible, in their order of digestibility.

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